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A CONTRIBUTION TO THE ETIOLOGY OF DIPHTHERIA.[1]

By E. KLEIN, M. D., F. R. S.

Read before the Royal Society of London.

The microbe, which was first described by Klebs (at the Wiesbaden Congress in 1883), then isolated and grown in artificial cultures by Löffler (*Mitth. aus dem K. Gesundheitsamte*, vol. ii) from human diphtheritic membrane, was shown by this observer to act virulently on various animals. The Klebs-Löffler bacillus—by which name the diphtheria microbe is known—is the one with which also Roux and Yersin (*Annales de l' Institut Pasteur*, ii, 1888, No. 12) obtained positive results on guinea pigs.

In the reports of the Medical Officer of the Local Government Board for 1888–'89 and 1889–'90, I have shown that there occur in diphtheritic membranes two species of bacilli, very similar in morphological respects, and also in cultures on serum and on agar, but differing from one another in this, that one species, Klebs-Löffler bacillus No. 1, is not constant in diphtheritic membranes, does not grow on solid gelatine at 19°–20° C., and does not act pathogenically on animals; the other species, Klebs-Löffler bacillus No. 2, is constant in diphtheritic membranes, in fact, is present even in the deeper layers of the membranes in great masses and almost in pure culture, acts very virulently on animals, and grows well on gelatine at 19°–20° C. Löffler, and after him other observers (Flügge, "Dle Mikroorganismen," 1886), considered it as a character of the diphtheria bacillus that it does not grow on gelatine below 22° C.; but this character, though true of the Klebs-Löffler species No. 1, does not appertain to the diphtheria bacillus species No. 2. In fact, there is no difficulty in obtaining pure cultures of this bacillus on gelatine if a particle of diphtheritic membrane be taken and well shaken in two or three successive lots of sterile salt solution, and from the last lot plate cultivations on gelatine are made. In this way I have obtained the diphtheria bacillus in great numbers of colonies, and in pure culture. Zarniko (*Centralbl. f. Bakteriol. u. Parasit.*, vol. vi, 1889, p. 154) and Escherich (*ibid.*, vol. vii, 1890, p. 8) both state that the diphtheria bacillus does grow on gelatine below 20° C.

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[1] This research was undertaken for the Medical Department of the Local Government Board, and was communicated to the Royal Society with the permission of the Medical Officer.

This bacillus diptheriæ acts very virulently on guinea pigs on subcutaneous inoculation; at the seat of the injection a tumor is produced, which in its pathology and in microscopic sections completely resembles the diphtheritic tissue of the human. In human diphtheria, the diphtheria bacillus is present only in the diphtheritic membrane, but neither in the blood nor in the diseased viscera; the same holds good for the experimental guinea pigs. In subcutaneous inoculation with artificial culture, though it causes in these animals acute disease and death—the lungs, intestine and kidneys are greatly congested—the diphtheria bacillus remains limited to the seat of inoculation. It was for these reasons that Löffler concluded that in diphtheria the diphtheritic membrane alone is the seat of the multiplication of the diphtheria bacillus, and that here a chemical poison is produced which absorbed into the system causes the general diseased condition, and eventually death. Roux and Yersin have then separated from artificial broth cultures the bacilli and the chemical products, and, by the injection of these latter alone into guinea pigs, have produced a general effect. I have in this year's report to the Medical Officer of the Local Government Board (1889–90) shown that in these experiments of injection of cultures into guinea pigs, an active multiplication of the diphtheria bacilli at the seat of inoculation can be demonstrated by culture experiments; from the local diphtheritic tumor and the nearest lymph glands the diphtheria bacilli can be obtained in pure culture on gelatine.

On various occasions during the last three years information has reached me by Health Officers (Dr. Downes, Mr. Shirley Murphy, Dr. Thursfield) as to a curious relation existing between a mysterious cat disease and human diphtheria in this manner, that a cat or cats were taken ill with a pulmonary disease, and while ill were nursed by children, and then these latter sickened with well-marked diphtheria. Or children were taken ill with diphtheria, and either at the same time or afterwards the cat or cats sickened. The disease in the cat was described as an acute lung trouble; the animals were quiet, did not feed, and seem not to be able to swallow; in some cases they recovered, in others they became emaciated, while the lung trouble increased, and ultimately they died. In one instance—in the north of London, in the spring, 1889—this cat malady, occurring in a house where diphtheria soon afterwards appeared amongst the children, was of a widespread nature; a veterinary surgeon—Mr. Daniel—informed me that at that time he had several patients amongst cats affected with the disease, consisting in an acute catarrhal affection, chiefly of the respiratory passages. He furnished me with two such animals, one that after an illness of several weeks had died, another that was sent to me in a highly emaciated state, affected with severe broncho-pneumonia; this animal was paralyzed on the hind limbs. In both instances the *post-mortem* examination showed severe lung disease, broncho-pneumonia, and large white kidneys due to fatty degeneration of the entire cortex. A similar condition is met with in the human subject in diphtheria. Further, I received from Dr. Thursfield, of Shrewsbury, the body of a cat that had died after a few days' illness from pneumonia in a house in which children were ill with diphtheria; another cat in the same house that became next ill with the same lung trouble also succumbed. The *post-mortem* examination of the animal that I received showed severe broncho-pneumonia and large white kidneys, the entire cortex being in a state of fatty degeneration.

Subcutaneous inoculations of cats were carried out with particles of fresh human diphtheritic membranes and with cultures of the diphtheria bacillus (Report of the Medical Officer of the Local Government Board, 1889–'90); hereby a local diphtheritic tumor was produced at the seat of inoculation, and a general visceral disease; in the cases in which death followed after a few days the lungs were found much congested; when death followed after one or more weeks, the lungs showed broncho-pneumonia and the kidneys were enlarged and white, the cortex being in a state of fatty degeneration; if the disease in the animals lasted beyond five to seven days, both kidneys were found uniformly white in the cortex; if of shorter duration, the fatty degeneration was sometimes only in patches. Although in these experiments the bacillus diphtheriæ was recoverable by cultivation from the diphtheritic tumor at the seat of inoculation, there were no bacilli found in the lungs, heart's blood, or kidney, and the conclusion is justified that, just as in the human diphtheria and in the diptheria produced by subcutaneous inoculation in the guinea pig, so also in these experimental cats the visceral disease must be a result of the action of a chemical poison produced by the diphtheria bacillus at the seat of inoculation.

From this it is seen that the similarity between the artificial disease and the natural disease in the cat is very great, and the question that presents itself is: In what manner does the animal receive or give the diphtheritic contagium in the natural disease? The natural disease in the cat is in its symptoms and pathology a lung disease, and it is reasonable to suppose from analogy that the lung is the organ in which the diphtheritic process in the cat has its seat. The microscopic examination of the diseased lung of cats that died from the natural disease bears this out, the membrane lining the bronchi in the diseased portions of the lobules presenting appearances which in microscopic character coincide with the appearances in the mucous membrane of the human fauces, pharynx or larynx in diphtheria. But the correctness of the above supposition, that diphtheria has its seat in the lung of the cat naturally diseased, was proved by direct experiment. Broth culture of the bacillus diphtheriæ was introduced into the cavity of the normal trachea without injuring the mucous membrane: The animals became ill with acute pneumonia, and on *post-mortem* examination two to seven days after, there was found extensive pneumonia, and fatty degeneration of the kidney. The bronchi, infundibula and air-cells of the inflamed lobules were found occluded by, and filled with, exudation, which, under the microscope, bears a striking resemblance to human diphtheritic membranes, and in the muco-purulent exudation in the large bronchi and trachea the diphtheria bacilli were present in large numbers.

During the last ten or twelve years certain epidemics of diphtheria have occurred which were traced to milk, but the manner in which that milk had become contaminated with the diphtheritic virus could not be demonstrated, although the evidence as to the milk not having been directly polluted from a human diphtheria case was very strong. The epidemic of diphtheria that prevailed in the north of London in 1878, investigated by Mr. Power for the Local Government Board; then the epidemic that occurred in October, 1886, at York Town and Camberley; the epidemic in Enfield at the beginning of 1888, and in Barking towards the autumn of 1888, were epidemics of this character. Mr. Power, in his report to the Local Government Board on the York Town and Camberley outbreak, states (p. 13) that a veterinary surgeon had certified that the cows from whom the infected milk was derived were all in good health, but that two of the cows showed "chaps" on their teats, and he adds that even two or three weeks after the epidemic had come to an end—the use of milk having been in the meanwhile discontinued—he saw at the farm one cow which had suffered chapped teats. At Enfield a veterinary inspector had also certified that the cows were in good health; but at Barking the veterinary inspector found sores and crusts on the udder and teats of the cows.

I have made experiments at the Brown Institution on milch cows with the diphtherial bacillus, which appear to me to throw a good deal of light on the above outbreaks of diphtheria. Two milch cows[1] were inoculated with a broth culture of the diphtheria bacillus derived from human diphtheria. In each case a Pravaz syringeful was injected into the subcutaneous and muscular tissue of the left shoulder. On the second and third days there was already noticed a soft but tender swelling in the muscle and the subcutaneous tissue of the left shoulder, this swelling increased from day to day, and reached its maximum about the end of the week; then it gradually became smaller but firm. The temperature of both animals was raised on the second and third day, on which days they left off feeding, but after this became apparently normal. Both animals exhibited a slight cough, beginning with the eighth to tenth day, and this gradually increased. One animal left off feeding and ruminating on the twelfth day, "fell in" considerably, and died in the night from the fourteenth to fifteenth day; the other animal on the twenty-third to twenty-fourth day left off taking food, "fell in" very much, and was very ill; it was killed on the twenty-fifth day.

In both animals, beginning with the fifth day, there appeared on the skin of the udder, less on the teats; red raised papules, which in a day changed into vesicles, surrounded by a rim of injected skin; the contents of the vesicles was a clear lymph, the skin underneath was much indurated and felt like a nodule; next day the contents of the vesicle had become purulent, *i.e.* the vesicle had changed into a pustule; in another day the pustule dried into a brownish-black crust, with a sore underneath; this crust became thicker and larger for a couple of days, then became loose, and soon fell off, a dry healing sore remaining underneath. The whole period of the eruption of papules, leading to vesicles, then to pustules, and then to black crust, which, when falling off, left a dry healing sore behind, occupied from five to seven days. The eruption did not appear in one crop: new papules and vesicles came up on the udder of one cow almost daily between the fifth and eleventh day after inoculation, in the other cow between the sixth and tenth day; the total number of vesicles in the former cow amounted to about 24 on the udder, 4 on the teats; in the latter they were all on the udder, and amounted to 8 in all. The size of the vesicles and pustules differed. Some were not more than ⅛ of an inch, others larger, up to ½—¾ of an inch in diameter; they had all a rounded outline, some showed a dark centre. From one of the above cows on the fifth day milk was received from a healthy teat, having previously thoroughly disinfected the outside of the teat and the milker's hand; from this milk, cultivations were made, and it was found that 32 colonies of the diphtheria bacillus without any contamination were obtained from one cubic centimetre of the milk.

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[1] The cows had been kept under observation previous to the experiment for ten days, and were in all respects perfectly normal.

Unlike in the human, in the guinea pig and in the cat the diphtheria bacillus passed from the seat of inoculation into the system of the cow; this was proved by the demonstration of the diphtheria bacillus in the milk. But also in the eruption on the udder, the presence of the diphtheria bacillus was demonstrated by microscopic specimens and particularly by experiment. With matter taken from the eruption—vesicles and pustules—of the udder, two calves were inoculated into the skin of the groin; here the same eruption made its appearance: red papules, rapidly becoming vesicular, then pustular, and then became covered with brown-black crusts, which two or three days after became loose and left a dry healing sore behind. More than that, the calves that showed this eruption after inoculation became affected with severe broncho-pneumonia and with fatty degeneration of the cortex of the kidney. In the two cows above mentioned, on *post-mortem* examination, both lungs were found highly congested, edematous, some lobules almost solid with broncho-pneumonia in the upper lobes and the upper portion of the middle or lower lobe respectively; the pleural lymphatics were filled with serum and blood. Hemorrhages in the pericardium and lymph glands, and necrotic patches were present in the liver. At the seat of inoculation there was in both cases a firm tumor consisting in necrotic diphtheritic change of the muscular and subcutaneous tissue. In this diphtheritic tumor continuous masses of the diphtheria bacillus were present; their gradual growth into and destruction of the muscular fibres could be traced very clearly.

It appears, then, from these observations, that a definite disease can be produced in the cow by the diphtheria bacillus, consisting of a diphtheritic tumor at the seat of inoculation, with copious multiplication of the diphtheria bacillus, a severe pneumonia, and necrotic change in the liver. The contagious nature of the vesicular eruption on the udder, and excretion of the diphtheria bacillus in the milk, prove that in the cow the bacillus is absorbed as such into the system.

From the diphtheritic tumor, by cultivation, pure cultures of the diphtheria bacillus were obtained; a small part removed from the tumour with the point of a platinum wire, and rubbed over the surface of nutrient gelatine or nutrient agar, yielded innumerable colonies of the diphtheria bacillus without any contamination. In cultural characters in plate, streak, and stab cultures, and in cover-glass specimens of such cultures, this cow diphtheria bacillus coincided completely with the human diphtheria bacillus; but in sections through the diphtheritic tumor of the cow a remarkable difference was noticed between it and the bacillus from the cultures, inasmuch as in the tissue of the tumor the masses of the microbe, both in the necrotic parts, as also where growing into and destroying the muscular fibres, were made up of filaments, granular threads, some of which possessed terminal oval or flask-shaped swellings. But that it was really the diphtheria bacillus was proved by culture experiments and by cover-glass specimens. In the latter, the transitional forms between typical diphtheria bacillus and long filaments with terminal knob-like swellings, with spherical or oblong granules interspersed here and there in the threads, could be easily ascertained. In the large number of cultivations that were made of the fresh tumor in both cows, the colonies obtained were all of one and the same kind, viz., those of the diphtheria bacillus; no contamination was present in any of the cultivations.

Appendix, May 20.—At the beginning of the month of April two cats died at the Brown Institution, after having been ill for several days, with symptoms like those of natural cat diphtheria. Between the beginning of April and the beginning of May, 14 cats became similarly affected, some more severely than others, and some died with the characteristic morbid change. This epidemic, as it may be called, commenced with the illness of the first two cats about the end of March; and the question arises as to how the disease originated in these two animals. No cats had been ill in their shed, and the two affected ones were healthy when received at the Institution some weeks before. But during the latter half of March there were in the stables of the Institution two milch cows ill with diphtheria induced by inoculation with the human diphtheria bacillus—in fact, the two cows already referred to. The diphtheria bacillus was found in the milk drawn from one of these animals on the fifth day after inoculation, and orders were given to the attendant that the milk of both cows was to be thrown away. This order was not obeyed, for part of the milk was given to the two cats above mentioned, and they sickened as described within a day or two afterwards. It ought to be mentioned that the man in attendance on the cows had also charge of the cats, but, in view of the fact that he was himself free from the disease, the possibility of his having conveyed it from the cows to the cats may be disregarded.

A CASE OF EXTIRPATION OF THE THYROID GLAND.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co.'s Hospital, Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

I have brought this case before the Society for the purpose of aiding the formation of statistics regarding this operation. It can, so far, be classed as successful, and the length of time that has elapsed since its performance would encourage the opinion that this may be permanent.

J. S. W——, aged 42 years, a clerk, entered the Southern Pacific Co.'s Hospital September 17, 1888. About eight months ago he had noticed a small tumor situated in the neck, close to the right border of the trachea. This gradually increased in size, and two months ago began to cause inconvenience through pressure upon adjacent organs. On admission, he complained of considerable difficulty in swallowing, and at times the mass obstructed the respiratory act. I accordingly at once determined upon removal of the tumor. Ether having been administered, assisted by Drs. Cluness and Gardner, I made an incision two and a-half inches long over the right border of the trachea. Through this the tumor was readily exposed. At the same time it was discovered that both lobes of the thyroid were considerably hypertrophied. Although the tumor was attached to the right lobe of the gland by a rather large pedicle, it was apparent that the connection was very intimate. In view of the hypertrophy of the gland, I concluded to remove it with the tumor. This was done by extracapsular enucleation. The right and left superior and left inferior thyroid arteries were tied twice in their continuity, and then divided. The same course was pursued in dealing with other important vessels, both venous and arterial. In this I was greatly aided by the use of a pair of curved transfixion forceps. The blunt points of this instrument having been passed around a mass of vascular tissue, were opened and made to grasp a double ligature. By this means the entire gland was separated with a minimum of hemorrhage. The resulting cavity was provided with drainage tubes, carefully irrigated, closed with wire sutures, and dressed antiseptically. The ligatures, which were of strong hemp twine, came away in from five to ten days, and the wound healed without interruption. For the first few days some difficulty was experienced in breathing and swallowing, but these symptoms disappeared without untoward consequences.

Interest in the operation of thyrotomy centres in the alleged fact that the condition known as myxedema is liable to follow. Upon this point many observers are positive in the opinion that patients in whom the thyroid gland is either totally absent, or is crippled by disease, in a majority of instances, die from the intervention of this pathological condition. Quite as many and as careful operators, among whom may be mentioned Dr. L. C. Lane, of San Francisco, have failed to note this fact. Dr. Lane states that he has operated ten times. A few of his cases have died, but in no instance has he encountered myxedema as a sequel.

In this case it must be said that at the end of four months from the operation the patient seemed to present symptoms of the unfortunate complication. His face was puffy, his limbs edematous to a marked extent, and his skin waxy and pale. Mental depression and inability to concentrate his mind upon his ordinary work was also noted. He complained of great weariness and lassitude, with neuralgic and muscular pains. These symptoms persisted for several months and then under tonic treatment gradually subsided. I have seen the patient very often during the past year. He pursues his calling as an accountant, and though his health is not the best, he seems to have escaped any special consequences attributable to the absence of the thyroid. Nevertheless, in the light of modern pathology and clinical experience, I am of the opinion that at least a small portion of the gland should be preserved when possible.

426½ J Street.

A CASE OF CARCINOMA OF THE DUODENUM.

By D. W. Montgomery, M. D., Professor of Pathology and Clinician for Diseases of the Skin in the Medical Department of the University of California, San Francisco, and
H. M. Sherman, M. D., Orthopedic Surgeon to the Children's Hospital, San Francisco.

The patient, a deaf mute, 68 years of age, first came under observation March, 1889. He was then cachectic, having a yellowish, waxy color, and was emaciated. He gave a history of vomiting for a long time past, and which still continued. Sometimes he vomited mucus; at others, dark, grumous material, somewhat like "coffee-ground" vomiting. His description of the vomiting was very graphic, as that of deaf mutes is apt to be. He doubled his fist tightly, and describing circles from a point rather low down in the right hypochondrium, moving rapidly upward and to the left until he reached the precordial region, then shot his fist quickly up the line of the esophagus, ended by making a vomiting motion with the mouth and throat. The vomiting did not appear to be distressful, but seemed merely a reversed peristalsis, with very little retching. There was a sharp pain in the stomach, not well circumscribed, and bearing no relation to the ingestion of food or to the act of vomiting. The abdomen was carefully palpated for a tumor, but neither swelling nor tenderness could be discovered at any time during the course of his illness. He sometimes complained when we kneaded his bowels too vigorously, but never enough to suggest tenderness of the parts. He had had a sister die of cancer of the breast, and he had suffered for years from constipation, although in other respects he had always enjoyed good health. He was now profoundly anemic, and there was also edema of the ankles. Meteorism was present to such an extent as to hinder satisfactory palpation of the abdomen.

The profound anemia, the dark, grumous matter vomited, the pain in the region of the stomach, the emaciation, and the age of the patient, pointed more directly to cancer of the stomach than to any other disease, but the demonstration of a tumor was lack-ing to make the diagnosis certain. Bright's disease was excluded by an examination of the urine, which was normal, excepting a very low percentage of urea. This was accounted for by the small amount of tissue waste from the patient taking very little food, and making very little exertion. Leucocythemia was excluded by an examination of the blood, which showed no disproportionate increase of the white corpuscles. We now determined to wash out his stomach, both as a therapeutic and a diagnostic measure. The distress, however, consequent on the attempt to introduce the tube was so great that we desisted, the patient being so anemic that a fatal syncope was to be feared. A rectal examination discovered a tarry black mass of feces in the lower bowel, which was removed partly with the fingers and partly by copious enemata. Purgatives, principally calomel and castor oil, were ordered. The stools following left no doubt as to the patency of the bile duct—bile, apparently in sufficient quantity, found its way into the intestine.

The pancreas is known to play a very important *rôle* in the absorption of fats; in fact, according to to Minkowski[1], who succeeded in completely extirpating the pancreas in dogs, no fat, with the notable exception of the fat of milk, is absorbed. But if, with the food, some fresh hog's pancreas was fed, then the greater part of the ingested fats were absorbed. We say with the exception of the fat of milk, for, from the investigations of Korowin and Zweifel, it is probable that an active pancreatic juice is not secreted during the first few months of infantile life, so that if this fat were incapable of being absorbed until acted upon by the pancreatic juice, infants would die of fat hunger. We gave our patient large quantities of olive oil, partly to act as a laxative, and also to form some idea of the function of the pancreas. We thought from the character of the stools that a good deal of the oil had been digested, but on account of the constipation the experiment did not give satisfactory results. In any case it must be very uncertain unless an accurate measurement of the fat ingested and dejected be undertaken. The possibility of syphilis of some of the abdominal organs seemed scarcely tenable in the absence of any syphilitic history; still, we felt an anti-syphilitic course of treatment would be justifiable. The patient was put upon biniodide of mercury, with a negative result.

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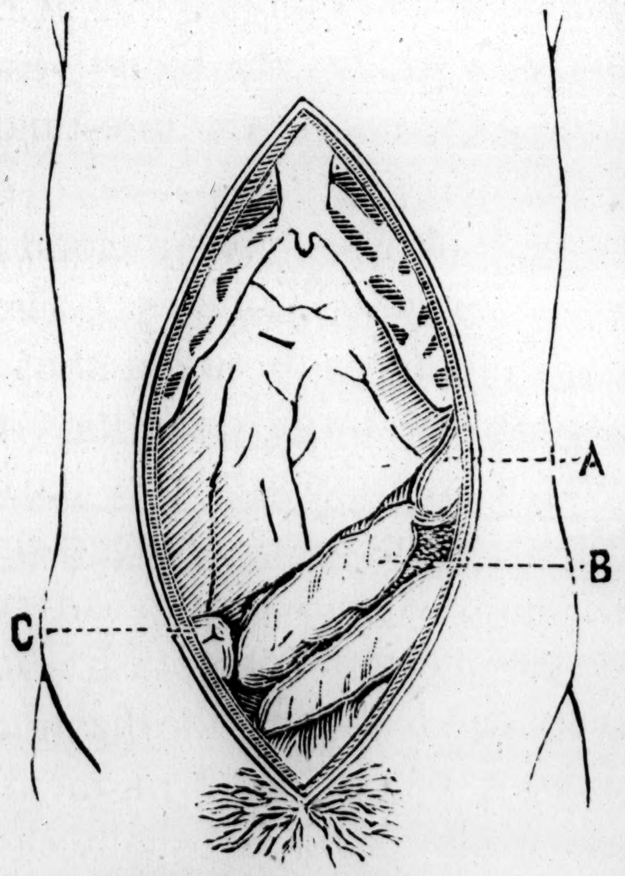
[1] Berliner klin. Wochenschr., April 14, 1890.

Bright's disease, leucocythemia, and syphilis were now satisfactorily excluded; but we were unable to exclude either pernicious anemia, or the anemia and marasmus consequent upon atrophy of the gastro-intestinal mucous membrane, similar to cases reported by Nothnagel, and by Osler and Henry. Toward the middle of August, about five months after first seeing the patient, he suddenly developed marked transitory edema of the face. He was then taking no drug, such as arsenic, to account for this. For about two weeks before death no liver dulness could be made out —pulmonary resonance going over into tympanitic resonance without any intervening hepatic dulness. Gradually the anemia and consequent weakness became more and more profound, and he died September 12, 1889.

At the autopsy, performed twenty-four hours after death, we found the upper portion of the abdomen bulged prominently forward, this prominence being bounded below by a well marked depression extending obliquely across the abdomen from the cartilage of the tenth rib on the left side, to the right anterior superior spinous process of the ilium. On opening the abdomen, this was found to be due to the enormously distended stomach which completely overlapped the liver above, hiding it from view, and fully accounting for the absence of liver dulness during life. No omentum could be demonstrated. The intestines, especially the colon, were distended with gas. There was considerable fluid in all the great serous cavities. The coronary arteries were large and tortuous, with calcareous degeneration of their walls, and there was atheroma of the aorta, especially about the origins of the coronary arteries. There was no blood in any of the chambers of the heart, and the endocardium had a marbled appearance from the fatty change consequent on anemia. The spleen was friable, small, and adherent to the fundus of the stomach. The capsules of the kidneys were slightly adherent, and their surfaces somewhat granular; the cortical substance was diminished, and the tissues of the pelves



A Enlarged stomach.
B Transverse colon.
C Loop of small intestine.

edematous. The liver was small, dark brown in color and friable. The gall bladder was distended with bile, and when compressed the bile poured out into the intestines in a free stream.

Two inches beyond the pyloric orifice, on the posterior surface of the duodenum, there was a disc shaped scirrhus carcinoma. It was sharply circumscribed and felt as if a button of dense tissue had been let into the wall of the gut. Its diameter was about that of a silver half dollar, and the central half of its area was ulcerating. Two little nodules (lymphatic glands) each about the size of a pea were found adherent to the external surface of the bowel directly beneath the cancer. The carcinoma, which was of the large alveolar variety, and cubo-globo-cellular, seemed to have started in Lieberkuhn's glands, and had gone down through Brunner's glands and the muscular coat; the adherent lymphatic glands were not cancerous, but simply swollen and adherent from the inflammatory infiltration consequent on the ulcerative process in the cancer. The pylorus admitted the finger freely, and the line of demarcation between the stomach and duodenum was well marked. The pancreas was normal. The stomach contained a large quantity of dark fluid, sour smelling and having an acid reaction. Its walls were thin and tore very easily; the blood vessels of the mucosa were deeply injected. The rest of the intestinal tract was normal.

The microscopical examination of the kidneys showed cloudy swelling of the epithelium lining the convoluted tubules. The hepatic cells were also duller than normal, and in between those occupying the centre of the lobule, there was large quantities of dark brown inspissated bile. At first it was thought this dark brown material might have been blood pigment, resulting from the rapid breaking down of the red blood corpuscles in cases of profound anemia; but on testing with ferrocyanide of potash and sulphuric acid, its color remained unchanged.[1] The localization and dark brown color were also against it being blood pigment, for blood pigment in the liver is golden yellow, and is usually deposited in the interlobular tissue and in the hepatic cells of the periphery of the lobule, whereas the pigment in this case was dark brown in color, and was situated toward the centre of the lobule. The enormous dilatation of the stomach seemed to be a simple dilatation, the walls being so weak that they dilated from the pressure outwards and downwards of its contents. The walls were thin and easily torn, and the gastric tubules were widely separated from one another.

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[1] Perls, Virchow's Archives, Bd. 39.

Whittier, in a recent article in the *Boston Medical and Surgical Journal*, on primary malignant disease of the duodenum, concludes that it constitutes about 1 per cent. of malignant disease of the intestinal tract; but most cancers of the duodenum are either at the entrance of the bile duct, or at the pylorus, and very rarely, as in this case, midway between and not involving either of these localities. With regard to diagnosis, malignant disease of the duodenum remains one of the darkest corners in internal medicine. Whittier mentions the following points that may be of service: (1) Symptoms of occlusion or obturation of the intestine, and the resulting dilatation of the stomach and first portion of the duodenum. (2) Symptoms of occlusion of the bile duct. (3) In disease of the third segment the frequent presence of bile in the matter vomited, and evidence of gastric dilatation are frequent symptoms. (4) The presence of blood in the dejecta or in the vomitus. (5) The belly is frequently shrunken or depressed, "boat shaped." (6) Pain is an unimportant symptom. (7) The presence of a tumor, which is so important a factor in the diagnosis of malignant disease of many other portions of the intestinal tract, is very seldom present here.

To resume, in this case the tumor did not occlude the bowel—it may have retarded peristalsis, because of the pain caused by movement; but it was too small to obstruct mechanically, and it did not appreciably narrow the gut by contraction, as some tumors of its class. That portion of the duodenum between the tumor and the pylorus was not dilated, neither was there any dilatation of the pylorus, and we are convinced that the distension of the stomach was a simple dilatation from its walls, being too weak to resist the pressure of the contents as described by Bouchard. The belly, far from being scaphoid, was ballooned out to such an extent as to interfere with palpation. The bile duct was not in the least obstructed, for on pressing on the gall bladder the bile spurted freely into the intestine. The vomited matters, however, were often dark and grumous, and the feces impacted in the rectum were dark and tarry.

In conclusion we would like to state that many times during the life of the patient the question of exploratory incision of the abdomen came up, but his marked anemia and general bad condition, together with the indefiniteness of the symptoms deterred us from an attempt in this direction. The *post-mortem* examination showed us that such an attempt would have been fruitless, not from the extent of the disease, but from its position, situated as it was in close proximity to the bile duct and portal vein, and in a remarkably awkward region to reach in any case.

A CASE OF CHRONIC VESICAL CATARRH CURED BY RAPID IRRIGATION AND FORCIBLE DISTENTION OF THE BLADDER.

By Gustave Mahé, M. D., New York.

The patient, aged 27, fireman, came to me November 25, 1889, with a history of gonorrhea (second attack) one year ago, since when he has not been well. Had also had gonorrheal cystitis. Passed water at intervals of about an hour. At the end of micturition, a thick ropy sediment passed with the last urine, and a portion remaining in the urethra, convinced the patient, from the presence of a discharge, that he was still suffering from gonorrhea. Had been under the treatment of several specialists, who had cut him twice for stricture; also incising the meatus and enlarging the urethral calibre until a No. 36 F. sound passed easily. The apparent discharge from the urethra disappeared under the use of injections, to return immediately upon their cessation, the cloudy character of the urine always remaining unaltered. Patient had had his bladder washed out about twenty times in succession, at intervals of two or three days, with no benefit. Solutions of nitrate of silver and the ordinary double current catheter had been employed.

On examination, I found that the cloudy deposit in the urine was catarrhal mucus. There was an extraordinarily large meatus, admitting a No. 42 F. sound. On separating the lips a red scar, made by the urethrotome, was seen on both sides, extending back probably several inches, according to the history of the operation, as furnished by the patient. On passing a bulbous bougie, two granular patches were located, one an inch internally, and the other just anterior to the triangular ligament. The deep urethra, especially that portion adjacent to the cystic neck, was extremely sensitive to the sound; but there was no stricture, and no stone in the bladder. The patient was placed upon the following treatment: Steel sound passed every third day; injection of m. ii of a solution of argenti nitratis (gr. 20:℥i) accurately deposited on the granular patches with a deep urethral syringe; and internally—

℞—Kali Citratis, - - - - -	ʒss.
Aquæ, - - - - - - -	℥iss.
Tinct. Bellad., - - - - -	ʒi.
Spirit. Ether. Nitros., ad, - - -	℥iv.—M.

Sig.—1 teaspoonful in water four times a day.

This treatment was pursued for one month, the granular patches healed up and the interval between micturitions was lengthened to about three hours. The urine, however, was still full of mucus and the vesical neck fully as sensitive. The use of the steel sound seemed to have been of no benefit, the lengthening of the intervals between micturitions being rather due to the antispasmodic action of the belladonna upon the cystic fibres and not to any marked change in the constriction of the vesical neck itself. For another month the bladder was washed out three times weekly, using a three pint solution of nitrate of silver (gr. iss : O), also depositing four times in succession at the neck of the bladder a few minims of the 20 gr. solution of nitrate of silver. The catheter employed was an ordinary double current instrument, only allowing the very slow passage of the injection into the viscus. Under this treatment patient showed no improvement, the discharge remaining as abundant as ever.

I therefore determined to try the effect of rapid injection of the bladder to its full capacity. I accordingly had a large catheter (25 F.) made by Messrs. F. G. Otto & Sons, of this city, with a **Y** shaped double extremity; one leg of the **Y** was connected with a three pint fountain syringe filled with hot bichloride solution (1:18,000). Introducing the catheter into the bladder and with the tip of the finger closing the orifice of the other leg of the **Y**, I rapidly injected as much of the solution as the patient could bear, thus fully distending the organ, especially the folds around the neck, and permitting the solution to penetrate between them and wash the mucus completely away. When the sense of discomfort became unbearable, the finger was removed from one orifice, the syringe cut off and the bladder emptied with the same celerity as it had been filled. This process was repeated until three pints had been injected, removing the catheter at the last upon a full bladder, and allowing the patient to expel the solution through the urethra as in ordinary micturition.

The following prescription was ordered:

℞—Pulvis Cubebæ,	ʒ ii.
Pulvis Acaciæ,	℥ i.
Pulvis Alum.	ʒ i.
Bals. Copaibæ,	℥ iss.
Olei Cinnamon.	gtt x.
Confectio. Sennæ, q. s.,	℥ iv.—M.

Sig.—A piece as large as a hazel-nut three times a day, after meals.

After the first injection there was a profuse hemorrhage from the neck, which, however, was easily controlled. After the second irrigation (three days later) the hematuria was very slight, and at the third it had completely disappeared. This process was repeated ten times at regular intervals, when the patient had apparently entirely recovered; micturition was perfectly normal, and the mucus had completely disappeared. I attribute this result to the rapid and full distension of the bladder by irrigation, completely separating the folds around the neck, tearing away adhesions, the result of inflammation (producing the hemorrhage noticed), thus allowing the bichloride to thoroughly wash away the mucus from every portion of the organ, overcoming the oversensitiveness of the neck, and allowing it to resume its normal degree of elasticity. Four points should be carefully borne in mind in using this treatment:

1. Injuries or diseases of the bladder walls which might result in perforation should always be carefully excluded.
2. It should not be used upon patients of such a nervous temperament as to suggest a possible disturbance of the innervation of the organ.
3. An exceedingly mild solution should be employed, increased according to individual tolerance.
4. Care should be taken not to introduce air into the bladder, as this may readily occur with a large catheter.

227 West 34th street.

MEMORANDA.

Death from a Tarantula Bite.

It has seldom happened that death has been caused by the bite of a tarantula; in the following case the fatality was evidently due to this cause. A healthy little girl, three years and four months old, at 8 P. M. was partially undressed preparatory to going to bed, when she fell to the floor crying, saying that something had bitten her. The parents, not knowing at the time what it was that had bitten the child, concluded that it was some sort of bug or possibly a spider, applied a simple lotion to the part affected, and not being apprehensive of serious results, put the child to bed. She slept some during the forepart of the night, but soon became restless and complained of pain. This condition grew markedly worse towards morning; the parents becoming alarmed, summoned a physician about 9 A. M. Upon examination it was observed that the extremities of the child were cold, swollen and mottled—a sort of marbleized appearance of the cuticle presenting. The pulse very rapid, compressible and indistinct, making it impossible to note the number of beats per minute; the heart's action tremulous, palpitating and tumultuous; the respiration rapid and shallow. The mind of the child was wandering and incoherent. Everything taken into its stomach for several hours before had been almost instantly ejected. The part said to have been bitten was the left iliac region; there were two small dark points about one inch apart, and surrounding them, covering an area more or less irregular, but nearly six inches in diameter, the skin presented a marked discoloration—a sort of dark olive green. Neither the abdomen or body of the child were swollen. The remedies usually employed in the bites of poisonous insects and reptiles were administered with no apparent effect; the condition of the patient grew steadily worse, and shortly before 1 P. M. she went into a general spasm, and soon died while in that state. At the time medical assistance was called, destructive changes had taken place in the blood, and the brain and nervous system were being rapidly overwhelmed by the poison. It should be stated in justification of the diagnosis, that when the child was picked up from the floor, a large dark insect was brushed from the night dress to the floor, and stepped upon by the father. In the morning it was evident from the remains, particularly the long dark hairy legs and the apparent size, that it was a tarantula, and doubtless the one that had bitten the child. Notwithstanding the amount of exaggeration and mystery connected with reptile and insect poisoning, there can scarcely be a doubt that the tarantula, in this part of the world, is preëminently the most poisonous of insects.

J. Q. WRENN, M. D.

Placerville, Cal.

REPORTS FROM THE HOSPITALS AND ASYLUMS OF THE PACIFIC COAST.

SAN FRANCISCO RECEIVING HOSPITAL.

UNDER THE CARE OF R. E. BUNKER, M. D.

[Reported by GEO. B. SOMERS, M. D.]

Fracture of Skull—Convulsions—Meningocele—Recovery.

A. McC——, æt. 4 years, 2 months, was brought to the Receiving Hospital in an unconscious condition, in the forenoon of April 9th, 1890. He had fallen from a balcony a distance of thirty feet, by actual measurement, his head striking on a planked sidewalk. On examination, a depression and crepitus were felt just below the left parietal eminence. The child was in collapse, the skin cold, and the pulse hardly perceptible.

Dr. Bunker, who was on duty at the time, decided not to operate for fear that he would die on the table. The parents were advised to place the boy in some hospital, but they insisted on taking him home. They were then directed to keep hot water bottles about his body, and to apply an ice-cap to the head. The next day he had regained consciousness somewhat, but the right side was partially paralyzed. The temperature was about 100° F., and at no time rose above this point. He was given an enema of turpentine in warm soap and water. A light milk diet was prescribed. On the third day the paralysis had almost entirely disappeared. He was quite conscious, could sit up and even get out of bed, but would not talk much. On the morning of the fourth day he seemed to be doing nicely—the only symptom present being slight weakness of the right side, but about noon he began to have epileptic convulsions. The parents stated that the convulsions came on every few minutes, and continued throughout the afternoon. Dr. Bunker did not see the case till about ten o'clock in the evening. The child was then unconscious and foaming at the mouth. It was immediately decided to operate. A large flap was turned down over the left parietal bone. The fracture was found to be stellate, the centre lying just below the left parietal eminence. From this point one line ran forward toward the outer angle of the eye and another backward toward the occipital protuberance. A third line extended clear across the crown of the head, toward the posterior part of the right temporal ridge. The triangular portion between the last two lines was depressed. On elevating this it was found that it could not be retained in position and it was therefore sawed off about an inch from the apex. As soon as the piece of bone was removed, the dura mater bulged out of the opening, forming a large tumor. The parts were now cleansed as thoroughly as possible, the meningocele pressed back through the opening, and the wound closed. Drainage was effected by catgut strands. An antiseptic dressing was applied, and the child placed in bed with hot water bottles and an ice-cap. In a few hours he regained consciousness and did well till the next afternoon. About two o'clock the convulsions returned. Dr. Bunker was immediately called. He took off the dressings, removed some of the sutures, and made an incision through the middle of the flap, directly over the opening in the skull, allowing the membranes to protrude. The meningocele thus formed was of a bright red color, tense, pulsating and polypoid in shape, its longest diameter being a little over an inch. The wound was again dressed, little or no pressure being exerted on the tumor. From this time on the child had no further convulsions, and in two weeks he was allowed to get up and run about. The flaps healed by first intention. The tumor gradually decreased in size and at date (two months after the accident) it appears as a cicatrix about as large as a dime. The pulsation is barely perceptible. The boy's general health and mental condition are as good as ever—his right side as strong as the left, and altogether he shows no signs of the severe accident except the cicatrices.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal. and

HENRY GIBBONS, JR., M. D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

The Danger of Syphilitic Infection by Gynecologists.—During an abdominal operation on a syphilitic patient, DR. WM. GOODELL, having pricked his finger with a needle, recalled his experiences in this direction. He had had several such scares in his professional life, but had fortunately escaped infection. Many years ago, at the Preston Retreat, he had been called upon to deliver a woman, just admitted, with forceps. An examination discovered that her nates, vulva and perineum were a mass of stinking syphilitic sores. He was for many days thereafter on the anxious seat, but escaped unscathed. Sometime later a suspicious sore on his examining finger was pronounced a chancre by several medical friends, but it disappeared without infecting him. Dr. Goodell mentioned the case of a physician who received a cut in the hand while operating on an ovarian tumor. Syphilitic infection followed from the wound, and prolonged ill health, finally resulting in death. A student of his graduating class was covered with eruption, following a chancre on the finger; after treatment he married; his wife had repeated abortions, but finally was delivered of a stillborn syphilitic child, whereupon the father shot himself dead. In another case a physician delivered a woman whose husband had infected her. This physician is now a wreck, dragging one foot behind him as he hobbles on crutches. Two other physicians were known to him who were likewise infected while in the discharge of their professional duties, and suffered severely.—*Annals of Gynecology and Pediatry*, March, 1890.

Fissure of the Anus in Women.—In a clinical lecture on fissure of the anus, DR. WILLIAM GOODELL, after having examined a patient before his class and discovered a fissure, says: "The discovery of this fissure to day, so late in the examination, will serve to teach you a valuable lesson. In making an examination, do not neglect to look at, or certainly to inquire about, the rectum. Fissures occur nine times more frequently in women than in men, because the former are nine times more frequently costive than men. Then, too, women's delicacy keeps them from mentioning any rectal complaint. Further, a fissure or a blind fistula may cause suffering which may not be referred to the seat of the disease, but it may be, and very often is, manifested by some reflex symptom, such as constant desire to urinate, or by some nervous phenomena, such as back-aches or loin-aches, that appear to be merely an expression of a worn-out constitution. I myself have been tripped up on this very point in delicate women. As I said above, rectal troubles may cause reflexes in various parts; but the part which is most apt to be affected by these reflexes is the bladder."—*Annals of Gynecology*, February, 1890. [Fissures are quite commonly found in and following the puerperal period, when they greatly retard convalescence. They, no doubt, arise through the great distension of the sphincter during parturition. I have found no difficulty in curing them, without operation, by the daily application for a few times, of powdered iodoform. Fissures of long standing may often be cured in this way. It is, of course, essential, as a preliminary, that the movements of the bowels shall be made soft and regular, for which purpose I find nothing better than some combination of sulphur.—H. G., JR.]

Lancing the Gums.—DR. F. FORCHHEIMER, after giving an historical sketch of the origin and extension of the practice of lancing the gums during dentition, and enlarging upon the uselessness and evils of the operation, sums up his conclusions as follows: (1) It is useless, *a*, as far as giving relief to symptoms; *b*, as far as facilitating or hastening teething. (2) It is useful only as blood letting, and ought not to be used as such. (3) It is harmful, *a*, in producing local trouble; *b*, in producing general disturbance on account of hemorrhage; *c*, in having established a method which is too general to do specific good, and too specific for universal use. (5) It is to be used only as a surgical procedure to give relief to surgical accidents.—*Archives of Pediatrics*, June, 1890. [These conclusions present a singular misconception of the objects for which the lancing is performed, and a want of knowledge or experience with the little operation, which the doctor admits when he says: "In my whole experience I have lanced the gums once." If the writer had any recollection of the eruption of his wisdom teeth, or had been consulted by patients suffering from this cause for days and nights, and had noted the great relief afforded by lancing the gums, he would not so sweepingly condemn the operation. It would be equally as foolish to urge a routine resort to this operation, as to condemn its employment *in toto*; but cases are constantly arising in which the benefit derived is too clearly marked to be "a pure coincidence or the result of a hemorrhage or of imagination on the part of those interested." As far as hemorrhage is concerned, in an extensive experience of nearly thirty years, I have never seen it. I have rarely seen more than half a drachm of blood lost, and I have yet to see the first evil effects result from the operation. On the contrary, I have seen, time and again, infants crying with the distress of the distended gum, refusing food, or having diarrhea from the imperfect digestion of that taken, coughing spasmodically, even breathing asthmatically, exhibiting symptoms of impending convulsions, and presenting many other evidences of nerve irritation, relieved *at once* on lancing the gums. It is too much to say that when, after the lancing, a peevish, sleepless crying child suddenly becomes playful, or falls into a restful sleep, or takes its food with avidity, it is a coincidence or imaginative. Common sense and ordinary observation determine otherwise. Why should not the incision of swollen, edematous gums give relief? Why is it not proper to lance the gums when an effusion of blood or serum has taken place into the tissues, or between them and the crown of the tooth? Now as to when and how to lance. I never find it necessary to lance the gums over the lower incisors and rarely over the upper incisors, or the canine teeth. The latter cause distress by being forced outward between the incisors and first molars, and not from distension of the gums. The broad, crowned molar teeth, however, most certainly do frequently distend the gums in forcing their way through. It is here that assistance may be given. It is rarely wise to incise unless the tooth is near the surface. Let me also formulate conclusions: (1) It is exceedingly useful, *a*, in relieving symptoms caused by nerve irritation; *b*, it does not hasten teething and is not expected to do so. (2) Its object is not to let blood, and it ought not to be used for such purpose. (3) It is harmless when properly performed. It produces no local trouble; it produces no general disturbance; it is not designed for universal use; it is not proposed as a specific; it should not be made a routine practice. (4) It is to be performed when the symptoms point to distress from the advancing tooth, generally, not until the tooth is near the surface, and need rarely be repeated on the same tooth. One incision upon and down to the crown of the tooth is sufficient. H. G., JR.]

The Influence of the Treatment of Metritis on Periuterine, Inflammations, Lymphangitis, Salpingitis, Pelvic Peritonitis.—TRÉLAT has already published two papers on this subject, in November and December respectively of last year. Since then further observations have dispelled all doubt and forced on him the conviction that certain inflammatory complications of metritis may be cured by treatment of the endometritis alone. The treatment of endometritis, irrespective of its complications, consists in curetting, or, more exactly, in thorough intrauterine antisepsis. The indications are easily established: all forms of metritis are amenable to antiseptic treatment, but with variable success. Fungous metritis is curable quickly and completely; catarrhal metritis of puerperal origin in the majority of cases, and chronic metritis, particularly when accompanied by salpingitis, with less certainty. Contraindications do not exist: Of this he has been convinced, and has taught accordingly for eighteen months. His conviction becomes firmer with enlarging experience. Lymphangitis, salpingitis, ovaritis and peritonitis may all be benefitted by treatment of the accompanying endometritis. In the presence of salpingo-ovaritis certain surgeons, French as well as foreign, disdain uterine treatment and unhesitatingly extirpate the diseased organs. But a reaction is setting in. Emmett leads the revolt against this mania for laparotomy. Coe follows, and Martin declares that he does not remove the uterine annexes until he has exhausted all other means. Trélat himself believes that cases of salpingitis not extremely painful and producing a tumor of but medium size, should be submitted to intrauterine antisepsis and withheld from laparotomy. He maintains also that a certain ratio of these cases recovers spontaneously—an opinion entertained by Doèris and Monprofit. While a persistent salpingitis may cause a relapse of metritis cured by antisepsis, still it does not necessarily do so, and, on the other hand, appropriate treatment of metritis may lead to the definitive cure of a concomitant salpingitis. In curetting ,Trélat pursues a method essentially the same as that of Potherot, already described in this journal (*vide* MEDICAL TIMES, June, 1889, p. 309.)—*Annals de Gynicologie*, May, 1890.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal.,
J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and
G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

Glandular Tumors of the Neck.—DR. J. WILLIAM WHITE divides the causes of enlargement into three great classes, and gives the chief characteristics of each: (1) *Lymphatic enlargements*, situated in the neck and dependent on constitutional causes, may arise from syphilis, carcinoma, and lymphadenoma. When from syphilis, they affect by preference the posterior chain of glands, are small, freely movable, painless, bilateral, and yield readily to specific treatment. If carcinomatous, they form a hard, rapidly growing mass, infiltrating surrounding parts, becoming fixed to everything beneath, involving the skin, causing serious pressure symptoms, and followed by the development of cachexia. Operative treatment is useful, though only palliative. If lymphadenomatous, they are rounded, regular, movable, painless, elastic or fluctuating, do not affect the skin, and are associated with anemia, leucocythemia, and with enlargement of other and widely removed lymphatics, and of the spleen. The treatment should be tonic and supporting. Operative interference is useless. (2) *Scrofulous adenitis* is essentially a tubercular inflammation of glands, occurring usually in young persons with a scrofulous or phthisical family history, and with some form of local inflammation superadded, which must be sought for in the mouth or pharynx, or about the face or head. The glands are all characterized by a tendency to caseation, with or without suppuration, and form indolent masses, less defined, more fixed, and more tender than in lymphadenoma. The treatment in recent cases should be first hygienic and tonic, with fixation of the head, and, if possible, with cure of the proximate cause. But in hospital practice particularly, and in patients who are not seen in the early stages of the growth, this treatment cannot be satisfactorily carried out. In such cases operation must be thorough and unsparing, the cardinal secret of success being to keep on the tumor; that is, to cut with the knife, or to scratch with a grooved director, through the bands of connective tissue which hold the gland down to the neighboring parts, doing this cutting and scratching directly upon the glands themselves, at safe limits from the edge nearest the important structures. By doing this patiently, it is remarkable what enormous growths may be safely removed. Free provision for drainage is made by the use of large rubber drainage tubes for the first twenty-four or forty-eight hours, at the end of which time they are withdrawn wholly or partially, and are replaced by strands of catgut. The wound is brought together with sutures of silver wire or silkwormgut, and is covered with cyanide gauze, and all the hollows of the neck from the chin to the clavicle are filled with bichloride cotton, which is held in place by a bandage in the shape of a double figure of eight of the head and neck, and neck and axilla. It is rare that more than two, or at most three, dressings are necessary, and the wound is usually healed completely in about ten days. But such good results can only be obtained if after the operation the head and neck of the patient are immobilized by the employment of sand-bags placed on either side of the head as the patient lies supine, and heavy enough to prevent rotation of the head upon the spine. (3) *Simple adenitis* results from some source of local irritation, and constitutes an acute, tender, inflamed, poorly defined swelling, running a rapid course to either suppuration or resolution. Treatment should consist in removal of the cause and in application of resolvent lotions or ointments; or, later, in free evacuation of pus.—*Therapeutic Gazette*, April, 1890.

Disarticulation of the Hip Joint.—At a recent meeting of the Berlin Surgical Society, MR. SALZIVEDEL reported two cases of this operation performed in Bardeleben's Clinic, which were dismissed cured in 82 and 68 days respectively, the wounds healing in 53 and 66 days. The first case was a large osteochondroma of the femur, reaching about the upper third. There was great anemia and some swelling of the femoral lymphatics. The method of operation was similar to that of Rose and Baring, the flaps being made typically and very little blood being lost. Not more than in an amputation of the thigh at the lower third after the application of Esmarch's bandage. The time required for the operation, including antiseptic preparations, was three-quarters of an hour. The second case was one of carcinoma of the skin, which had existed for five years, on old cicatricial tissue. The cachexia was well marked, and there was great anemia due to repeated hemorrhages from the carcinomatous ulcerations. The great pain had brought on abuse of morphine. The femoral lymphatics were greatly swollen and, subsequently, showed malignant degeneration. The method of operation was the same as in the first case. After ligation of the femoral artery the venous system was first emptied by elevation of the leg before ligation of the vein. Filling of the veins by communicating branches was prevented by the application of a rubber tube below the seat of ligation. All the other vessels were readily secured, and the prophylactic ligation of the iliac artery was unnecessary. The whole amount of blood lost was about equal to that in an amputation of the forearm. Owing to the presence of the scar tissue which in front and externally, extended almost up to the iliac crest, the flap was taken from the inner and posterior surface. The time required for operation, one hour. A great advantage of this method is that the femoral and inguinal lymphatics are left with the parts removed. In the discussion that followed KUESTER said he did not think that Bardeleben's method had been generally adopted. He had always operated by first making a high thigh amputation, and subsequently disarticulating, and was so pleased with it that he had not adopted any other. VON BERGMAN said that the disarticulation of the hip joint by a preceding high amputation of the thigh, with circular cut and splitting of the soft parts over the great trochantar to the joint, belongs unquestionably to Beck. The speaker had operated upon twelve or more cases in this manner, and had lost one. Two of these have just left the clinic with proper apparatus, one of them being a boy five years old. Bardeleben, in replying, said that he did not consider that the other methods should by any means be abandoned; but he believed the primary ligation of the large vessels to be the best possible course for those unused to the operation. Esmarch's band is not safe, as the muscles are liable to slip beneath it in a well developed man.

Radical Cure of Hernia.—M. TULARÉ, in reporting a case where he performed the radical cure for hernia twice in the same case, expresses the opinion that the term radical cure is improper and misleading. He suggests the substitution of the term surgical cure, which would give a more truthful idea of the treatment. He considers the operation a thoroughly justifiable one, having operated on twenty cases, all of which were cured. His reason for objection to the term radical cure is that it does not carry the possibility of a return of the pathological condition.—*Gazette des Hôpitaux*, February 27, 1890.

Treatment of Nondescent of the Testicle.—M. RICHELOT reports a case upon which he had operated, in which both sides showed this condition. He says: There are two varieties—one in infants, where the descent takes place naturally; the other, where this does not occur. In the latter form it is right to cut down on the gland, dissect it free, draw it down into the scrotum and attach it there by sutures. In cases where there is an open pouch of peritoneum, this should be obliterated at the time of operation. Should a hernia exist the radical operation should be performed at the same time and the sac removed.—*Gazette des Hôpitaux*, April 15, 1890.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

BY WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Arrest and Partial Restoration of Immature Cataract With Restoration of Reading Power.—If DR. RICHARD KATISH, of New York, has found a method that will check the development and improve the vision of cataractous eyes, as he believes he has, he will have conferred a great boon upon mankind. He reports several cases of immature cataract "in every one of which there is a marked thinning of the lenticular opacity, easily discernable by the ophthalmoscope and by oblique illumination. The treatment consists in the instillation of a mixture of glycerine and a 1 per cent. solution of boric acid and rose water. If this cause the eye to be irritated longer than twenty seconds, the strength is reduced one-half, or if no irritation is produced the ratio of glycerine is doubled. Rarely more than three instillations can be applied at one sitting. Conjoined with this, manipulation is made as follows: The patient is seated in a chair with a back high enough to support the head; two drops of the solution are instilled into each eye, and the operator, behind the patient, places both hands over the closed eyes, so that the tips of each middle finger rest upon the eye ball atits nasal side, the index and ring fingers falling into place beside the middle finger. With slight pressure upon the eyeball, the three fingers are drawn outward over the eye to the temporal side. This process is repeated twenty or thirty times a minute, the strokes being in one direction only, and continued for ten minutes, when a second instillation of two drops should again be made, and manipulated as before for ten minutes; then a third instillation and manipulation. This is to be continued daily for one week, when the manipulations should be continued for fifteen instead of ten minutes each time.—*Medical Record*, March 29, 1890.

Warm Applications in Atrophy of the Optic Nerve.—SSEGALL reports a case in which vision had fallen to counting fingers at three feet in the right eye, and to perception of light in the left. Iodide of potash, inunctions of gray ointment, and strychnine injections were used, improving vision respectively to $\frac{1}{10}$ and counting fingers at three feet. This improvement was, however, only temporary, as the case soon relapsed into its former condition. Moist hot applications were ordered to be used over the occipital region, the location of disturbances of nutrition the result of arterial sclerosis, and also over the closed eyes. These wet cloths were applied two or three times daily for fifteen or twenty minutes at a time, as hot as could be borne. Vision was soon increased to double its previous condition, and at the termination of the report which was too early to be sure of its permanency.—*St. Petersburger med. Wochenschrift*, March 24, 1890.

Infective Conjunctivitis of Animal Origin.--M. ABADIE presented a patient to the Paris Opthalmological Society, suffering from what Parinaud had recently described as infectious conjunctivitis of animal origin. There was marked engorgement of the glands of the neck, several of which had suppurated. On the conjunctiva there were large red granutions, in the centres of which in the early stages are deposits of yellow matter. He had recently seen two similar cases. One of these was a veterinary surgeon who remembered having previously gotten a horse hair into the eye, confirming the animal origin of the trouble.—*Progrés Médical*, April 19, 1890.

Tuberculosis of the Uveal Tract.—M. PARINAUD says that tubercles of the iris, in a large proportion of cases, could be diagnosed with great certainty. There are, usually, in the vicinity of the tubercle granulations, whose evolution is characteristic. At first they are grey, then yellow, fading away from the base of the tubercle. At this stage a deposit of tubercular matter resembling hypopion may form in the anterior chamber. Extreme indolence is a characteristic of tubercular iritis or keratoiritis. The infection may be only local. Two of his patients had no tubercular history, but had died within two years of phthisis. Surgical intervention is legitimate as most cases are at first of local nature. These cases prove that infection may become general. Where the infection has a tendency to extend to the whole eye enucleation should be performed. When the tubercle is confined to the iris it should be excised.—*Progrés Médical*, April 19, 1890.

SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

AND

DERMATOLOGY.

By D. W. MONTGOMERY, M. D., Professor of Pathology, University of California, San Francisco.

A New Treatment for Orchitis.—M. DU CASTEL highly recommends the use of the chloride of methyl in cases of orchitis, having employed it for the past four years. His method is as follows: Each morning, for 10 to 20 seconds, the chloride of methyl is applied to the swollen testicle by means of a simple tampon of absorbent cotton. When the contraction of the dartos and paleness of the skin is very noticeable, the refrigeration is stopped. The applications may be made morning and evening and besides the refrigeration, compression by collodion may be practised. *Gazette des Hôpitaux*, May 13, 1890.

Non-Specificity in the Gonococcus.—M. ERAUD, in a paper upon this subject, presents the following conclusions: (1) There exists in the healthy urethral canal of man, a microbe, the staphylococcus uretheralis, which is capable of producing urethritis. (2) This microbe is always found with the same morphological characteristics and the same reaction upon the mucus membranes of adolescents, infants and the new born. (3) It presents the same characteristics as the microbe found in orchitis, in prostatic blenorrhea; indeed the same as the gonococcus. Is it not then probable that all these microbes, living and growing in the normal urethral canal, are capable under conditions unknown to us, of producing blenorrhea?—*Mêdicine Moderne*, April 17, 1890.

Unusual Modes of Syphilitic Infection.—DR. R. W. TAYLOR, in a paper upon this subject, cites cases to prove the correctness of his statements as to unusual modes of infection that leave little doubt of these agents being occasional sources. They are as follows: Chewing gum, caustic holder in physician's hand, handkerchief, bathing suit, vaginal syringe, pair of drawers, adhesive plaster, water closet seat, conductor's whistle, tongue scraper, pillow, and razor.

Abortive Treatment of Gonorrhea.—DR. MALÉCOT advocates an abortive treatment of gonorrhea, that while resembling the standard nitrate of silver method, possesses modifications which he claims render it more effective. He uses first an irrigation with a weak boric acid solution and then the nitrate of silver injection—the first day at a strength of 1:50 and and the following days 1:100 or 1:150; the solution being retained in the urethra for two or three minutes. In the intervals between the acts of urination, it is recommended to wash out the canal with some antiseptic solution—permanganate of potash, resorcin or bichloride, the latter not stronger than 1:10,000 or 1:20,000.—*Journal of Cutaneous and Genito-Urinary Diseases*, June, 1890.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Iodol.—DR. DAVID CERNA has made a clinical report on the uses of iodol, both as an internal and external remedy. In the latter cases it was applied to ulcerated surfaces as a substitute for iodoform, to which it is preferable, not only on account of its freedom from disagreeable odor, but because it succeeded in producing healthy granulation and healing of the ulcerated surfaces where iodoform had failed. Internally it was used in cases of syphilis and diabetes mellitus as a substitute for iodide of potassium where that drug had produced such intense iodism as to necessitate its discontinuance or had failed to relieve the disease; and under both conditions the results following the use of iodol were eminently satisfactory. These results are very encouraging, and further trials should be given the drug as a local and systemic remedy. Rich as it is in iodine, there is no doubt that its properties are due to this element, as is the case with iodoform; but over iodoform it has advantages, one of the chief being its lack of the disagreeable odor so characteristic of the latter drug. Its internal employment is especially suggested in those syphilitic cases, even of the worst type, which will not bear long the constitutional effects of mercury and iodide of potassium. As a local application, iodol may be used as a powder, solution in alcohol (1:3) or as an ointment with vaseline (1:4). Internally it may be given in doses as high as 30 gr. daily without producing any untoward constitutional effects.—*Medical News*, March 8, 1890.

Turpentine in Typhoid Fever.—In a short, but eminently practical article upon this subject, DR. H. C. WOOD says that there are two stages of typhoid fever in which turpentine is especially useful. The first is at the end of the second week, when the tongue becomes dry and glazed, and the abdomen very distinctly tympanitic, with or without the coëxistence of diarrhea. The second stage is during convalesence, when the perpetually recurring diarrhea, with lack of digestive power, indicates failure of some of the intestinal ulcers to heal. I do not believe that it is possible to reach the ulcerations in the small intestines with nitrate of silver or other similar readily-decomposable or readily-absorbable remedy. The volatile oils are absorbed slowly, and are rapidly vaporized at the temperature of the human abdomen, so that there can be no reasonable doubt that, either in the form of liquid, or more probably in the form of vapor, when given freely by the mouth, they get into contact with the mucous membrane of the upper intestine. If it were universally administered in every case of typhoid fever, beginning about the twelfth or fifteenth day, there would be much fewer cases of intestinal hemorrhage or other severe symptoms due to a local lesion. Ten or fifteen drops should be given every two hours during the day, the patient being allowed to rest at night. The following formula will be found satisfactory:

℞—Ol. Caryophylla., - - - -	gtt. vi.
Ol. Terebinth., - - -	ʒ iss.
Glycerin., - - - - -	
Mucil. Acaciæ, - - -	aa. ℥ i.
Syrupi, - - - - -	
Aquæ, - - - - -	aa. qs. ad. ℥ iii.—M.

Sig.—One dessertspoonful as directed.

—*Medical News*, March 8, 1890.

Therapeutical Uses and Toxic Effects of Cannabis Indica.—In an article upon this subject, (*Lancet*, March 22, 1890), DR. J. RUSSELL REYNOLDS says, that in order to furnish the results of more than thirty years' experience of the drug, it will be well to arrange the maladies in which it has been either useful or useless in the following order; then to speak of its uncertainty of action, and of the methods to be followed in order to avoid its toxic effects. *Mental.*—The drug has been absolutely successful for years in cases of senile insomnia, with wandering; where an elderly person, probably with brain softening, is fidgety at night and has delusions, but is quite rational during the day. In alcoholic delirium it is very uncertain; in melancholia and mania it is rarely of use, and more frequently injurious; but in the occasional night restlessness of patients with general paralysis, it has proved to be of eminent utility. *Sensorial.*—Cannabis Indica is especially useful in those painful maladies which have been relegated to the "functional" order. Neuralgia, most frequently of the facial variety, has repeatedly yielded to cannabis indica after ten, fifteen or twenty years duration. In neuritis the drug is only useful with other treatment and is a most valuable adjunct to mercury or iodine, and similarly in neuralgia it may be given together with arsenic, quinine or iron. Very many sufferers from migraine have for years kept the pain in abeyance by taking hemp at the moment of threatening onset of the attack. The drug has been found to be almost useless in sciatica, the various forms of myodynia, and the pains that occur only on movement. Again, it has not produced any benefit in cases of gastrodynia, enteralgia, tinnitus aurium, muscæ volitantes, and almost all the so-called "hysteric pains;" whereas it has relieved the lightning pains of ataxia, and also the multiform miseries of tingling, formication, numbness, and other paresthesiæ so common in the limbs of gouty people. *Muscular.*—In clonic spasm, whether of the epileptoid or choreoid type, hemp is very useful. In the eclampsia of children, or of adults, whether from worms or teething, it can frequently be relied upon alone to produce relief. In true chronic epilepsy it is absolutely useless; but there are many epileptiform attacks which are either eclamptic or the result of organic disease of a gross character in the nervous centres in which Indian hemp is the most efficient remedy. *Toxic Effects.*—In explaining the occasional toxic effects of Indian hemp two things must be remembered: (1) That the drug is one which is liable to great variations in strength. For practical purposes the active principle has not been separated, and extracts, as well as tinctures, cannot be made uniform, because the hemp grown during different seasons, and in different places, varies in the amount that it contains of the therapeutic agent. The preparation, therefore, should always be obtained from the same source, and the treatment should be commenced with a minimum dose. (2) That individuals differ widely in their susceptibility to medicines, and hence there is further need for caution in the use of Indian hemp. In an adult the dose should commence with one-fifth of a grain of the solid extract, and one-tenth of a grain in a child. The tincture is more easily handled as the dose can be increased drop by drop, from day to day, until relief is obtained or the drug proved to be useless.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Diabetes Mellitus and Diseases of the Pancreas.—In previous numbers of this journal, extracts of experimental work done by DR. O. MINKOWSKI in conjunction with PROF. V. MERING were presented. Their investigations demonstrated conclusively that total extirpation of the pancreas in dogs was invariably followed by permanent diabetes. Unlike temporary glycosuria provoked by curare, carbon monoxide and other toxic agents, the diabetes mellitus observed by them coincided in the main with the severe form of the disease as it occurs in man. The excretion of sugar began after the operation, and attained its maximum in from 1 to 3 days. The diabetes could without doubt be referred to the pancreas. Lesions of adjoining structures were positively excluded. Partial extirpation of the gland was not followed by diabetes. The diabetes thus induced was not due to the absence of the pancreatic secretion in the intestines, but to some unknown specific pancreatic function which has for its object the utilization of the organism's sugar. Ligation of the excretory duct of the organ was equally as ineffectual in provoking diabetes as partial extirpation. Diabetes after extirpation of the pancreas is the only form of experimental diabetes identical with that of man. They have recently endeavored to show the bearing of these experiments on the pathology of human diabetes mellitus. Pathologico-anatomical investigations prove that lesions of the pancreas occupy the first position in diabetes. Lesions of the liver and medulla oblongata are comparatively rare in this disease, and statistical evidence from numerous authorities demonstrates the frequency of pancreas lesions. Thus, Frerichs, in 28 necropsies made on diabetic individuals, found lesions of the pancreas in 12 cases, whereas Seegen, in 30 cases, found them 13 times. Senator maintains that in one-half the cases lesions of this organ are present. Minkowski does not hesitate to state that in all cases of diabetes, disturbances in the functions of the pancreas exist. The organs heretofore implicated in diabetes were the liver and muscles. The only fact which exists in support of hepatogenic diabetes is, that glycogen is found in the liver; and pathologico-anatomical, together with experimental, investigations have failed to confirm the existence of hepatogenic diabetes. With reference to the muscles, it is well known that as a result of muscular activity carbonic acid is produced, and that muscular work will reduce the excretion of sugar. It must, on the contrary, be observed, that even diffuse disease of the muscles is rarely followed by glycosuria. Two objections exist to the theory that diabetes mellitus has its origin in pancreatic disease: (1) That in all cases of disease of the pancreas the excretion of sugar is not present. (2) In all cases of diabetes lesions of the pancreas are not found. In answer to the first objection, Minkowski calls attention to the fact that partial extirpation of the pancreas is not followed by diabetes, and consequently circumscribed disease of this organ may exist without its production. Regarding the second objection, reference is made to the incomplete attention directed to the pancreas in autopsies performed on diabetics, and even though examination of this organ be made, it is, as a rule, macroscopical not microscopical. All cases of diabetes need not be attended with anatomical lesions of the pancreas, for diseases of the nervous system, circulatory disturbances and toxic influence may lead to functional disturbance of that organ. Glycosuria is an expression of functional pancreatic disturbance like albuminuria, indicating functional disturbance of the kidney. The therapeutic object to be attained is the elimination of factors which call into action the infected organ. It would seem advisable to administer pancreatin and its preparations. Their use, however, has been without influence in its excretion of sugar. This fact occasions no surprise when it is known that the pancreas and not its secretions influences the disposal of sugar in the organism.—*Berliner klin. Wochenschrift*, February 24, 1890.

Pulsation of the Soft Palate and Uvula in Aortic Insufficiency.—As is well known, even in healthy individuals, the capillary blood vessels at the roots of the nails often show systolic redness and diastolic paleness. This so-called "capillary pulse" becomes exaggerated in diseased conditions, notably in aortic insufficiency. The cause of this phenomenon is explained as follows: In consequence of the hypertrophy of the left ventricle of the heart, an increased quantity of blood, received by regurgitation from the aorta and from the left auricle, is thrown into the relatively empty aortic system, then follows a rapid emptying of this system toward the capillaries and the heart. Ophthalmological examination often shows pulsation of the retinal blood vessels and at times pulsations of the liver and spleen can be felt. F. MUELLER has lately called attention to pulsation of the soft palate, which he claims is similar in origin and significance to the capillary pulse. Inspection of the throat under normal conditions shows no pulsations. He observed the phenomenon in a case of aortic insufficiency with intercurrent angina. Coincident with the carotid pulsation, the tonsils and soft palate became elevated and the uvula rythmically depressed. This pulsation was noted even after subsidence of the angina. He observed this phenomenon in 4 out of 7 cases of aortic insufficiency. Dr. Merklen has noticed a similar pulsation in the same disease.—*Wiener med. Presse*, March 30, 1890.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Morphinomania and Cocainism.—DR. F. S. CLOUSTON summarizes his observations in regard to morphinomania as follows: (1) The habitual use of opium is, in nine cases out of ten, most injurious to the higher mental powers, and more especially impairs the volition. (2) The dose has to be steadily increased till such an amount is taken as tends to impair nutrition and the trophic energy of the brain, to disturb the appetite and the whole alimentary system, and ultimately to destroy the power of natural sleep. (3) The craving set up by such excessive use of opium is one of the most persistent, intense and difficult to resist of any known morbid cravings. It has no remission or periodicity in it. (4) The nervous constitution of the patient has very much to do with the inception of the habit. It may be said generally that persons of the nervous diathesis, of nervous or insane or drinkers' heredity, all persons who feel and dread pain excessively, and most "excitable" persons are especially liable to acquire the craving. (5) Given or taken for insomnia or to relieve pain, is the origin of most cases of morphinomania. (6) It behooves medical men to take the constitution of each individual patient carefully into consideration before opium is prescribed, and to ask: "Is there any danger of a habit being set up?" (7) As to the treatment of morphinomania, I have little hesitation in laying down its principles: Help from without in the shape of skilled strong nursing; control and never remitting companionship are needed in almost all cases. It is better and safer to undergo the short Hades of absolute stoppage than the more prolonged purgatory of tapering off. While this is being gone through, use the bromides, wines, every form of beef and peptonoids that the stomach or the rectum will retain; bismuth, ice and counter irritation for the gastric pain and vomiting; digitalis and strophanthus for the weak and irregular heart's action. I should now use paraldehyde or sulphonal to get sleep for a few nights, but I should not go on for long with them. If there is emaciation, I should try Dr. Playfair's recommendation of massage, though I suspect some of the good effect in his cases resulted from the control of the massage nurses, and the taking up of the patient's mind by the details of the process, and the assertions that would be dogmatically dinned into their ears as to its unfailing efficacy. The great things to aim at are good nerve tone, firm muscles, a brown sunburnt skin, steady occupation, as much fat as can be put on, a sound moral sense all round, strengthened inhibition, and a dominating conviction that the drug is poison in any dose, and under any possible circumstances whatever. In relation to cocainism, Clouston says: (1) Cocaine is the acutest and the most absolute destroyer of inhibition, and of the moral sense generally, that we yet know. (2) The morbid craving is very intense and control is absent. (3) The drug requires to be increased faster than that of any such drug to get the same effect. (4) The delirium and hallucinations of all the senses of single doses become chronic in cocainism. (5) Its immediate effects are more transient than any other such drug, but this does not apply to the craving set up. (6) The treatment of cocainism consists in outside control of the patient, in stopping the drug at once, in careful watching—I should not trust a patient under treatment as regards suicide for the first week—nursing, the use of every sort of food that will keep up the strength, and of the bromide of ammonium, brandy or wine, tea and coffee, and possibly a hypnotic, like paraldehyde or sulphonal, for two or three nights at least. (7) A patient suffering from cocainism can usually be certified as insane so far as the presence of delusions are concerned, but he gets over these so soon, and yet is so far from the real cure, that certification and sending to an asylum is not a satisfactory process altogether. We need cocainism included in any special legislation for dipsomania.—*Edinburg Med. Jour.*, March, 1890.

A Spinal Symptom Observed During Convalescence from Acute Mania.—DR. H. SCHIRMER reports four cases of mania in which, during the stage of convalescence, the knee jerk gradually disappeared, returning upon complete recovery. Three of the cases were observed by Schirmer himself, in the psychiatric clinic in Freiburg. One, the first of these four remarkable observations, was made by Professor Emminghaus, in the Dorpat Insane Asylum. After a detailed treatise upon the different theories for the origin of the patellar reflex, as well as regards the causes which may have brought about the disappearance of this phenomenon, the author comes to the conclusion that in these cases we have to do with a functional disturbance of the spinal cord, and probably of the posterior columns. This disturbance cannot have resulted in an atrophy of the nerve fibres, because the diseased parts had their functional ability restored after a short time, in the fourth case, even, temporarily, after galvanization of the lumbar portion of the spinal cord.—*München. med. Wochenschr.—Centralblatt f. klin. Medicin*, April, 1890.

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 105 town districts of the State during the past month, in a population of 828,425, correspond to an annual rate of 15.96 a thousand, the total mortality reported having been 1,106. 95 deaths were due to zymotic diseases, giving an annual rate of 1.376 a thousand. Of these 15 were due to typhoid fever, 7 to scarlet fever, 18 to diphtheria, 19 to measles, 5 to whooping cough, 8 to cerebro-spinal fever 6 to cholera infantum, and 16 to diarrhea and dysentery. 340 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.934 a thousand. Of these176 were due to consumption, 110 to pneumonia, 12 to pulmonary congestion, and 45 to acute bronchitis; the rate being for consumption and pneumonia, 2.544 and 1.584, respectively. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 594,000, was 17.16. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Chico.

Contagiousness of Consumption.—The question as to the contagiousness of consumption is one which, though old, is still agitating the minds of medical men, and is of great interest to them, and of paramount importance to the community at large. Those who believe in the contagious character of pulmonary phthisis, and those who do not believe that it is communicable, are about equally divided, it would seem, and it must be confessed that both sides have strong arguments in support of their theories. It is true that the partisans of each side of the question discuss the matter from two different points of view, or, as Dr. Thomas J. Mays says in his Address on Hygiene, delivered before the Pennsylvania State Medical Society (*Medical and Surgical Reporter*, June 14, 1890) "approach it from two directions: (1) From the experimental or laboratory side. (2) From the clinical side." Dr. Mays, while he admits that tuberculosis is transmissable from man to man, or from man to animals by inoculation, does not believe in its contagiousness, and from the clinical side of the question brings forward statistics that are a vigorous defense of his views. He begins by asserting that physicians, who are constantly exposed to consumption, are less liable to the disease than members of any other profession or walk in life. "The statistics of the Brompton Hospital for Consumption, in London, show that during a period of 36 years, not a single clearly-authenticated case of consumption arose within its walls among its 29 physicians and assistant physicians, its 150 clinical assistants, and its 101 nurses, of which there existed a health record. The statistics of the Friedrichshain Hospital, in Berlin, recently gathered by Dr. Furbinger, show that during a period of 16 years, out of 459 male nurses; there were 4 (two of whom were tuberculous before entering); of 339 female nurses, there were 2; of 83 physicians, there were 3 (one of whom entered with the disease) who became consumptive. Of 108 Victoria Sisters, who were engaged as nurses in the same institution from two to five and a half years, only one became consumptive. In regard to the detrimental influence of consumption hospitals upon the community in which they are situated, Dr. Mays cites the case of the Consumption Hospital of Görbersdorf, Germany. Although since 1854 there resided in the institution more than 10,000 patients suffering from pulmonary consumption, who daily mingled with the inhabitants of the town, and walked the streets, and the towns-people were continually inhaling an atmosphere which must have been laden with tubercle-bacilli from the sputa and expectorations of these consumptives, yet the death rate among the population is 50 per cent. less than it was before the establishment of the hospital. The evidence also as to the contagiousness of phthisis between husband and wife is of interest. Dr. Schnyder, of Switzerland, has gathered statistics of 844 cases occurring in married people. He says that "in 445 of these cases, the husband only, and in 367 the wife only, was consumptive, while in 32 both were affected, showing that in 812 instances there was not the least proof of contagion." Of 670 cases of phthisis affecting husbands and wives, in only five instances was there room for suspicion that the disease might have been transmitted from one to the other. Dr. Ludet shows that out of 101 widows and widowers whose consorts died of consumption, only 7 became phthisical, so that 105 lived intimately with consumptive people and did not contract the disease. Such statistics as these would seem to furnish a strong argument against the theory that consumption is contagious, but it by no means proves that pulmonary phthisis is not communicable from one person to another. Neither has the bacillus theory proven anything to the contrary, and the question still remains an open one, and one upon which there is room for much discussion and reflection.

METEOROLOGY.

By J. W. Robertson, B.A., M. D., San Francisco, Cal.

Summary for May.—*Temperature* was mild, varying but slightly from the mean of 60°.

Rainfall.—During May the rainfall was slight, only four cloudy days being noted, with a precipitation of from 1 to 3 inches in Northern California, while in the South but a trace was reported.

The Climates of California.—At the meeting of the State Medical Society, recently held at Los Angeles, the subject of the varied climates found in California was discussed, and attention was very properly drawn to the fact that the climates of different portions of the State essentially differed. Among other statements made, was one to the effect that there is as much difference between the climate of London and that of the Sahara as there is between the climates of Northern and Southern California. This remark might be allowed to pass as a harmless exaggeration, did it not strongly intimate what is often asserted, and thus tend to further propagate an idea already largely entertained by our Southern neighbors and others not conversant with the facts, that Northern California is cold, bleak and foggy, which it certainly is not, either summer or winter. The term "Sahara" hardly characterizes the habitable portion of Southern California, for while it is warm. certain portions along the coast are both cool and foggy. In California, isothermal lines run, not east and west, but north and south, dividing the State into coast, valley and mountain belts. The coast belt stretches from Crescent City on the north to San Diego on the south, and is characterized by a westerly wind in the summer that often drifts in the fog and reduces the summer temperature to a mean of from 60° F. in the north to 65° in the south. This same wind during the winter so moderates the climate that the temperature falls but little The valley belt extends from Redding in the north down through the Sacramento and San Joaquin valleys and includes the greater portion of Southern California. For these reasons it is difficult to compare the climates of "Northern" and "Southern California." Much depends on what is meant by these terms, and where the dividing line is to be drawn. Should it pass through the geographical centre, a part of the San Joaquin as well as the Santa Clara, Napa and Sacramento valleys would have to be included in Northern California. Certainly the Sacramento valley would be so included, just as the country surrounding Los Angeles is the type of Southern California. Comparing, then, Red Bluff in the northern and Sacramento in the southern portion of the Sacramento valley with Los Angeles, we do not find any marked difference either in temperature or in the productions of the soil, which is probably the best test of climate. The mean annual temperature of Red Bluff is 62°, that of Sacramento 58° and of Los Angeles 60°. Nor is this mean temperature arrived at by counterbalancing a high summer with a low winter temperature. Taking the mean temperature of the six summer months gives Red Bluff 73°, Sacramento 65° and Los Angeles 66°, while the mean of the six winter months was 52°, 53° and 55°, respectively. The orange, the fig and the grape find as genial a home in the Sacramento valley as they do in the more southern counties. Palms flourish and flowers bloom unprotected, and snow and ice are as phenomenal in the north as in the south. The cactus, however, does not flourish to quite such an extent. There is a region east of the Siskiyou mountains and north of Shasta, comprising one tier of counties, with a population of some five thousand; also, a region east of the summit of the Sierra Nevadas, sparsely settled, where the winters resemble those of the East, where the four seasons are well marked, and the winters are characterized by frequent snow storms, ice and frost. This is known as the mountain belt, but Northern California should not be judged by this any more than should the climate of Yuma be taken as a standard by which the climate of Southern California is to be estimated.

California—Tabular Statement for May, 1890.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	59.6	98.0	29.0	77.3	48.5	28.8	3	1.71	------	----	----	----	--------	Placer *Republican*.
Berkeley......... "	57.5	81.6	45.0	67.3	51.1	16 2	4	1.44	85.1	14	7	10	--------	Obs. Univ. of Cal.
Colfax............ "	61 9	92.0	42.0	------	------	------	6	3.85	------	----	----	----	SE.	Southern Pacific Co
Eureka........... "	54.0	78.0	41.0	59.3	48.8	10.5	7	1.71	85.5	5	14	12	NW.	Signal Service U.S.A.
Fresno........... "	69.0	103.0	42.0	83 8	55.0	28.8	3	0.45	55.0	19	6	6	NW.	" " "
Keeler........... "	68.9	94.0	39.0	81.3	56.5	24.8	2	0.20	33.8	22	6	3	se.s.sw.	" " "
Los Angeles.... "	60.4	96.0	43.0	72.3	54.1	18.2	2	0.03	72.9	5	18	8	W.	" " "
Monterey .... "	57.4	76.0	44.0	------	------	------	----	0 37	------	----	----	----	SW.	Southern Pacific Co.
Napa............ "	59.9	91.0	42.0	69.5	50.3	19.2	4	2.23	------	13	12	6	S.	Sta. Napa Ins. Asylum
Oakland......... "	52.2	87.0	47.0	------	------	16.7	3	1.17	74.2	16	9	6	W.	J. B. Trembley, M.D.
Paso Robles.... "	65.8	98.0	43.0	------	------	16 7	1	0.22	------	----	----	----	S.	Southern Pacific Co.
Red Bluff....... "	67.8	99.0	42.0	79.6	55.9	23.7	7	2.67	65.6	17	8	6	NW.	Signal Service U.S.A.
Sacramento. ... "	63.8	92.0	46.0	75.8	55.0	20.8	5	1.80	71.0	17	7	7	SW.	" " "
San Diego....... "	60.4	75.0	46.0	65.8	55.1	10.6	3	0.08	77.4	12	7	12	W.	" " "
San Francisco.. "	59.8	85.0	47.0	67.2	52.5	14.6	4	1.07	75.0	12	14	5	SW.	" " "
Santa Barbara.. "	60.0	91.0	44.0	68 5	53.0	15.5	4	0.18	75 0	11	5	15	W.	Hugh D. Vail.
Santa Cruz...... "	62 6	88.0	49 0	------	------	------	3	1.22	------	----	----	----	S.	Southern Pacific Co.
Yuma...........A. T.	78.1	106.0	54 0	94.4	61.6	32.8	0	0.00	33.8	29	2	0	W.	Signal Service U.S.A.

Blank (----) indicates data missing.

Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author,

SACRAMENTO: JULY, 1890.

SAN FRANCISCO CITY AND COUNTY HOSPITAL.

We had recently occasion to allude to the San Francisco Receiving Hospital, and to point out some of the needs of that institution. The City and County Hospital is in too disgraceful a condition to admit of mere criticism, but rather to merit abuse. The daily papers have again and again adverted to its shortcomings, when something very outrageous has come to light, and yet everything goes on in the same old way, retrogression, rather than inprovement, being the rule. There are defects and abuses unapparent except to professional observation, and needs that only the medical staff appreciate; and it seems hardly possible that the proper authorities can fully realize some of the graver deficiencies. In view of numerous representations that had been made, it was deemed advisable to see the actual condition of affairs. The Hospital was therefore carefully inspected on June 9, 1890, every facility being afforded by the staff, and the following facts, as developed, are too expressive to need comment. They apply only to the wards, etc.; the administrative quarters were clean, neat and in good condition. It is only just to say that the worst portions of the hospital are in the condition in which they were found by the present management, and in which they have remained through lack of funds.

The Hospital is situated in the block bounded by Potrero avenue, Nebraska, Sierra and Twenty-third streets, comprising about nine and a-half acres of ground, which rises gently to the rear. The buildings are of wood, erected in 1872, and at present sadly in need of a coat of paint, the last having been administered ten years ago. The general plan of the Hospital is simple and primitive. The buildings are arranged in four parallel lines, the outer and inner lines being 100 feet apart, the distance between the two inner ones being 200 feet, that on the south side extending but half way. Midway between either end is a covered corridor, 557 feet in length and one story high, connecting the buildings and running transversely through each. Between the centre lines, and in front of the corridor, are the administrative quarters and, behind, the kitchen and store-room. The buildings are all two story, including 14 large wards, with nurses' quarters, and 14 smaller ones, affording a total accommodation of 422 beds, of which an average of 300 are occupied. Several of these smaller wards or rooms have been partitioned off from the larger wards, and no uniform plan has been observed. The sizes and shapes are various, and some are quite unfit for the reception of the sick. The large wards have a capacity of 32 patients each, though sometimes holding 36. Heat is provided by one or two common stoves placed in the centre. The windows are numerous, and the shades are of various degrees of antiquity and preservation, some being evidently intended for smaller windows. This absence of uniformity everywhere is the first thing that strikes the visitor; the beds are not alike; the shabby little wooden cupboards beside the patients' beds are of every style as regards construction and paintwork. The counterpanes are of different shades, and even colors, in the same ward, destroying an effect in neatness and harmony cheaply obtained, and well illustrated in wards C and J, which were resplendent in new red and white spreads. The one feature that is uniform throughout the institution is the shabbiness and poverty that varies only in degree.

In all the lower wards there is absolutely no provision for ventilation except that afforded by open doors or windows, while many of the ventilators between the floors are occluded by birds' nests where the screens have rotted out. In the upper wards a large opening in the centre of the ceiling surmounted by a lattice ventilator on the roof provides some exit for foul air when open during the summer season. The floors are badly worn and often rough; and wards and corridors require new floors throughout. The walls and ceilings in some of the wards are very dirty; but being calcimined, it is impossible to do any effective cleaning. All walls, ceilings and floors should be treated so as to render them non-absorbent and water-proof in order to permit of frequent cleansing and disinfection. One of the prime needs of modern sanitation is good sewerage facilities and an abundant supply of water. This also means good plumbing. Of the closets, bath-rooms and urinals inspected, not one was in a creditable condition—all were more or less offensive. The closets are of an antiquated type, the facilities for flushing insufficient, and in some cases the closets were out of order, but still in use. The asphaltum floors in several places have become so worn as to absorb the discharges of careless patients; and to add to the varied odors, one slop-hopper contained a mass of feces. The bath-tubs are of iron, innocent of framing, enamel or paint, and, in a couple of instances, are gradually disappearing—no doubt under the hands of the relic-hunter! We failed to find a bath in which it would have been safe to have placed any but a robust or healthy individual. This, however, is of little moment, when we are confronted with the astounding fact that from May 15th there had been no hot water on in any part of the hospital, and that this state of things was likely to exist until August 1st at least. The cause of this was the condition of the main boiler, which was unsafe to use, yet no attempt had been made to provide temporary facilities.

One of the smaller wards, "operating room No. 1," was in an incredibly delapidated condition, resembling rather a room in an old world tenement rookery, than a ward for operation cases in a hospital, supported by a large and prosperous city. It is used at present for isolating offensive or infectious cases. The condition of the mess-room for patients able to come to table is fully as bad, the appearance of its walls, particularly the east one with its closet and sink, must be seen to be appreciated. The operating theatre is painfully in need of a thorough renovation, and we are compelled to say that the surgical staff are laboring under great disadvantages and are even placed under grave responsibilities in the midst of such surroundings. The basements, whose condition was unearthed some months ago, are now clean, though also in need of the universal repairing everywhere necessary. A row of cells intended for the temporary confinement of noisy and violent cases are unfit for the reception of human beings. The flooring in some has disappeared, and in others is so rotten as to break beneath the foot. In the rear of the hospital is the laundry, now out of commission, and in the basement of which is located the disabled boiler. This building was undergoing repairs; the wash-ing appliances remaining in it were of ancient appearance and obsolete pattern.

The recent fire beneath the kitchen and adjoining the bakery, which damaged the premises to the extent of several hundred dollars, is a good example of the way things have been managed. That this fire was not more serious in its effects was due to a remarkable concatenation of circumstances. Directly behind the seat of the fire was a hydrant, distant about eighty feet, the only piece of fire hose on the premises, measuring just 100 feet, was attached, and the conflagration subdued. This piece of hose is unique in its way, and no visitor should fail to see it coiled in a reel in the southeast corner of the yard. This is the only apparatus for extinguishing fires on the premises; there are no pipes on the roof, no hose in corridors or attached to stand pipes, there are no hydrants or stand pipes within the building and the total number of fire-plugs outside is five. The original cost of the hospital was $160,000, and without estimating its present value it would take at least that sum to replace it. There is no insurance upon it. The nearest fire engine is at Folsom and 22d streets, distant 8 blocks, and it would take that engine, if on hand, at least 8 minutes to have one stream of water on the buildings; while in order to get inside the grounds, the cross bar of the gate would have to be knocked off to clear the smokestack. There may be some reason for facilitating the destruction of the hospital by fire, but it should be remembered that such fires are nearly always accompanied by terrible loss of life. Another very interesting feature is the only disinfecting chamber on the premises. It is a wooden vat about 6x6, evidently not steam tight, and situated at the north end of the laundry building in the open air, without shelter of any kind.

The best feature of the institution is the kitchen and accessory departments. It was in a much better state of preservation and was better kept. The food examined here and in the store-rooms averaged well. The milk was very good, fresh meat, bread, sugar and other groceries good, the butter bad, vegetables good. Of the food cooked, the meats and vegetables were good, the soup (bean soup) rather poor, and a pudding, though good enough as far as its ingredients went, could not properly be rated higher than boiled tapioca. This of course refers to the "house diet" upon which patients who are convalescent or practically well are placed.

With the sick diet or "extras," we understand that considerable difficulty is often experienced in procuring them. They are described as "eggs, chops, steaks, fowl, cocoa." The officers state that broth, milk and eggs can be had, but that chicken and other delicacies cannot be furnished under the present appropriation. On the other hand members of the staff say that even eggs are not always to be had when ordered.

The cause of this very disgraceful condition of affairs is the same parsimony and poverty, affecting almost every department of the city government. To place the buildings in a state of thorough repair would cost about $20,000, while to run the institution in an efficient, though economical manner, would require not less than $100,000 per annum. The total amount requested to be appropriated for the maintenance of the hospital during the current year, including needed repairs, was $105,000, or an average of 80 cents *per diem* for each bed occupied. This has been reduced to $72,000 or an average per bed of 49 cents, and it must be admitted that on this pittance a remarkably good showing is made. Comparing these figures with those of other hospitals in the city, we find that the allowance per bed occupied is, in the German Hospital $1 33, and in the French Hospital $1.65. The nursing staff of 14 is inadequate, and this accounts for want of cleanliness in several places, as it is of course impossible to accomplish every thing with the present service. Each nurse has from 25 to 30 patients to look after, to assist in which, and in the care and cleanliness of beds and ward, they must rely upon convalescent patients. There are only 3 male and 2 female night nurses, to an average of 307 patients. Each male nurse has under his charge 3 wards with 90 to 100 patients, and each female nurse 2 wards or about 50 cases. A cheap and practicable method of improving all this, would be the establishment of a training school for nurses, with a competent paid superintendent, a plan that works well in many hospitals with poorer facilities for instruction and experience The supply of instruments and modern surgical appliances is lamentably deficient; the staff being frequently compelled to use their own instruments to perform the necessary operations. We were informed by one of the physicians that he had lately been unable to relieve retention of urine in a case of paralysis, because there was not a catheter on the premises, and it is currently reported that the superintendent paid for the last lot out of his own pocket.

There are several aspects of this question that will at once suggest themselves, the first being that when a city assumes the responsibility of caring for its impecunious sick and injured, and where its citizens are being taxed for this purpose, an adequate return should be made. This obviously is not the case in this instance, and the municipal authorities assumed a grave responsibility that it is impossible to evade. There are many factors in a hospital that contribute to the recovery and comfort of a patient outside mere medical attendance. Foremost amongst these is efficient nursing by trained nurses. In this the hospital is so deficient that the system, as such, is not to be considered. Appropriate diet is as important as medicine. In any case the invalid or convalescent usually objects to nourishment, and his appetite is always capricious. Here we find that parsimony presses hardest on the sufferer who might practically starve for a time from sheer inability to assimilate the only food obtainable. The influence of the mind upon the subject of any disease is well known, and the disastrous effects of depressing influences is universally recognized. It must be admitted that there is little in the hospital calculated to cheer or encourage an inmate, and much to disgust all but the coarsest and most debased, while the sanitary facilities are well fitted to discourage personal hygiene amongst the convalescent.

Last but not least, in its importance to the community, it must be borne in mind that the City and County Hospital furnishes the means of clinical instruction to the Medical Department of the University and to the Cooper Medical College, schools which year by year graduate a considerable portion of the medical profession of the State. Can it be said that the facilities provided are such as are readily attainable, or that the object lessons in the care and treatment of the sick are such as to favorably impress the student? The safety and welfare of our homes are in the hands of the profession, and in nothing can public feeling be more profoundly interested than a high standard of medical education. California schools have a deservedly high reputation that they should be aided in maintaining, while commercially a city is directly benefited by ranking as an educational centre. We have treated this subject at considerable length, recognizing its importance, and in presenting the facts have done so in the plainest language, in the conviction that they can eloquently speak for themselves. As an example of a modern hospital, this institution is a disgraceful farce and a reproach that a metropolitan city can ill afford to regard with indifference.

NOTES.

San Francisco Microscopical Society—Twentieth Anniversary.

The meeting of the San Francisco Microscopical Society, held on June 4, 1890, marked the twentieth anniversary of the organization of the Society. Originally founded in 1870, it had practically ceased to exist within the first year, principally through want of funds and adequate apparatus. It was reorganized in 1872, and shortly after was incorporated under the State law. The Society now possesses all the necessary apparatus, and its cabinet contains a most valuable collection of specimens. It has accomplished some excellent scientific work, and it is only to be regreted that this has not been given more extended publicity. It includes amongst its members a large proportion of medical men who have always been active workers in the Society.

A New Edition of the Medical Register.

The Board of Examiners has decided to issue a new edition of the "Official Register," and it is hoped that this will be ready for distribution about Jan. 1, 1891. To insure its prompt appearance the hearty coöperation of the profession throughout the State is essential. The labor entailed in the production of the Register is very great and is performed without compensation, a fact that should stimulate physicians to render every assistance. The Board desires to have a postal card from every one of its licentiates, giving present location, notwithstanding that no change may have been made since the last report. Notifications of removals and deaths and of arrivals are also solicited. Much of this work ought really be done by the local medical societies, whose secretaries should be familiar with the names of physicians within their respective counties. The Official Register is now generally recognized as a great boon to the profession, and its degree of perfection depends entirely upon the prompt assistance that may be accorded.

Dr. W. S. Whitwell and the San Mateo County Supervisors.

Several months ago we had occasion to allude to an ordinance (MEDICAL TIMES, vol. iii., p. 513) passed by the San Mateo County Supervisors, requiring that any person caring for patients suffering from insanity or inebriety within the county, should surround his premises with a wall eight feet in height, and maintain a guard at the entrance. This was directed against Dr. W. S. Whitwell, who had removed his private hospital to San Mateo. We then expressed the opinion that the Board of Supervisors had exceeded its powers, and that its action would not be sustained by the courts. The question has now been brought into court for adjudication. In May last Dr. Whitwell was arrested upon the complaint of Mr. John Gamble, a resident of the neighborhood, for violating the ordinance. The doctor was tried at San Mateo, found guilty and fined $50, and, upon refusing to pay the same, was remanded to the custody of the Sheriff. A writ of habeas corpus was issued by Judge Fox, returnable before Judge Hoge, of San Francisco. Here testimony was introduced to show that such restrictions as those required by the San Mateo Supervisors were quite unnecessary, were not in existence, in any other part of the State, and were in direct opposition to modern methods of dealing with such cases. Drs. C. T. Buckley, W. H. Mays and C. Webb testified to the foregoing facts, while several other physicians, though ready, were not placed on the stand. It was agreed to submit the case on briefs, and we shall note its subsequent progress as of general interest to the medical profession.

The American Medical Association.

In our last issue we were compelled to state that the American Medical Association, contrary to the reports contained in the local daily papers, had decided to meet in Washington instead of San Francisco. The action that the Association took, almost unanimously, in reversing the recommendation of the nominating committee, appears to have been inspired by motives that are not at first apparent. The rule, or rather resolution, that the Association meet in Washington every other year, had nothing to do with the decision, in fact it has long since been abandoned, as the location of successive meetings for several years past will demonstrate. It is certainly better policy that the Association should meet in various sections of the country, the only requisite being that the city shall be of sufficient size to afford ample accommodation for visitors and for the meetings, and on this score some dissatisfaction seems to have been experienced in the past two years. Ever since the unfortunate controversy over the International Medical Congress, the Association has suffered severely in the loss of many excellent members from the Eastern and Middle Atlantic States, from which districts it has been in a measure estranged. This and the fact that to go from Nashville, in the southwest, to San Francisco in the far west, was to invite a small meeting and diminished revenue, were no doubt the most important factors. The most regrettable feature in connection with the whole matter, is the ridiculous position in which the State Society was placed by the erroneous reports appearing in some of the San Francisco papers. We repeat, as we have already stated, that when the profession really wants the American Medical Association to hold a meeting on the Pacific Coast, it must send a strong delegation of representative men to aid in the accomplishment of this purpose.

Medical Legislation.

The subject of medical legislation is one that should now interest the profession throughout the State as the time is opportune for much needed missionary work. The measures in which the State Society is directly interested are the new medical law (Transactions 1888, p. 282), and the amendment to the law regulating actions for libel and slander. Both measures were introduced at the last session of the Legislature; the former at so late a date and so little interest was taken in it, that it never emerged from committee. The latter made considerable progress but failed to pass, through opposition developed incidentally, the recurrence of which need not be expected. The medical bill as adopted by the State Society is a good one, possessing all the salient features of similar enactments in operation elsewhere. We understand that it has been endorsed and will be supported by the Faculties of the various colleges referred to in the bill, yet experience teaches us that measures which are likely to be regarded as class legislation require their intrinsic merits to be fully demonstrated. The Committee on Medical Legislation will have charge of these measures during the session of the Legislature, but long before that date members of the profession should be actively working in their behalf. A great deal can be done before nomination and before election, and every physician, for all possess some personal influence, should see that candidates, without regard to party, thoroughly understand the aim and scope of these measures, and are favorably disposed towards them. The influence of the profession, when rightly used, is undoubtedly very great, and the foregoing is an eminently proper object on behalf of which to exert it. There can be but one opinion of the immense value of the new medical bill or of its influence upon medical education in the production of a higher standard and thereby in the general elevation of the profession.

Committees of the State Medical Society,

The following are the Standing Committees of the Medical Society of the State of California, for 1890—91.

Clinical Medicine, including Diagnostics and Therapeutics—J. O. Hirschfelder, San Francisco; J. H. Davisson, Los Angeles; J. H. Bullard, Anaheim, Chas. A. McQuesten, San Francisco; T. H. Pinkerton, Oakland.

*Indigenous Botany, Materia Medica, Pharmacy, and Medical Chem*istry—W. P. Gibbons, Alameda; T. W. Serviss, Oroville; S. B. P. Knox, Santa Barbara; G. P. Lee, Merced; Wm. T. Lucas, Santa Maria.

Anatomy and Physiology—Chas. E. Farnum, San Francisco; Julius Rosenstirn, San Francisco; W. B. Lewitt, San Francisco; W. Le Moyne Wills, Los Angeles; E. J. Overend, Oakland.

Histology and Microscopy—Wm. A. Edwards, San Diego; W. T. Wythe, Oakland; T. W. D'Evelyn, San Francisco; J. C. Spencer, San Francisco; H. Ferrer, San Francisco.

Surgery and Clinical Surgery—G. F. Shiels, San Francisco; D. D. Crowley, Oakland; Joseph Kurtz, Los Angeles; C. W. Nutting, Etna Mills; Geo. W. Westlake, Red Bluff.

Obstetrics and the Puerperal Diseases—L. S. Burchard, Oakland; W. W. Becket, Los Angeles; D. B. Van Slyck, Pasadena; L. M. F. Wanzer, San Francisco; G. P. Reynolds, Alameda.

Gynecology—O. O. Burgess, San Francisco; Beverly McMonagle, San Francisco; F. T. Bicknell, Los Angeles; J. H. Carrothers, Martinez; A. H. Pratt, Oakland.

Medical and Surgical Diseases of Children—David Powell, Marysville; B. R. Swan, San Francisco; H. M. Pond, St. Helena; H. N. Miner, Colfax; J. H. Miller, Redding.

Ophthalmology and Otology—Geo. H. Powers, San Francisco; H. N. Smart, San Diego; Elizabeth R. C. Sargent, San Francisco; Adolph Barkan, San Francisco; F. A. Darling, Los Angeles.

Diseases of the Mind and Nervous System—H. G. Brainerd, Los Angeles; F. W. Hatch, Agnews; Thos. Phillips, Stockton; M. F. Price, Colton; A. W. Saxe, Santa Clara.

Medical Jurisprudence—J. P. Widney, Los Angeles; R. F. Rooney, Auburn; Thos. Ross, Woodland; C. A. Crepin, Hollister; W. C. Jones, Grass Valley.

Medical Topography, Meteorology, Endemics and Epidemics—A. J. Pedlar, Fresno; C. A. Rogers, Bakersfield, S. S. Kahn, San Francisco; T. M. Todd, Auburn; J. Q. Wren, Placerville.

State Medicine and Hygiene, and Adulteration of Foods and Drugs—A. H. Agard, Oakland; Chester Rowell, Fresno; P. C. Remondino, San Diego; C. A. Ruggles, Stockton; B. W. Day, San Diego.

Medical Education and Medical Legislation—W. E. Briggs, Sacramento; Walter Lindley, Whittier; H. J. Crumpton, Sausalito; R. H. Plummer, San Francisco; C. N. Ellinwood, San Francisco.

Prize Essay—W. H. Mays, San Francisco; G. F. G. Morgan, Olema; A. Liliencrantz, Oakland; C. B. Bates, Santa Barbara; J. H. Stallard, San Francisco.

Necrology—H. B. Ellis, Los Angeles; D. A. Hodgehead, San Francisco, H. D. Robertson, Yreka; A. J. Hart, Modesto; J. R. Todd, Gridley.

Pathology and Pathological Anatomy—Albert Abrams, San Francisco; E. M. Patterson, Oakland; J. M. Radebaugh, Pasadena; Henry Worthington, Los Angeles; Jules Simon, San Francisco.

Publication—C. C. Wadsworth, San Francisco; W. W. Kerr, San Francisco; J. C. Sundberg, San Francisco; G. F. Shiels, San Francisco; Albert Abrams, San Francisco.

Arrangements—J. H. Parkinson, Sacramento; T. W. Huntington, Sacramento; W. A. Briggs, Sacramento; G. L. Simmons, Sacramento; W. E. Briggs, Sacramento.

The Society failed to provide for the Committees on Laryngology and Rhinology, and on Dermatology and Venereal Diseases, the formation of which had been recommended by Dr. Walter Lindley, in his Presidential address. As it was the obvious wish of the Society that these subjects be recognized, the President has requested Dr. J. D. Arnold, San Francisco, to report on Laryngology and Rhinology, and Dr. Martin Regensberger, San Francisco, on Dermatology and Venereal Diseases.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, May 20, 1890.

The President, THOS. W. HUNTINGTON, M. D., in the Chair.

New Member.—E. R. MERRILL, M. D., was duly elected a member of the Society.

THE PRESIDENT read a paper upon the treatment of typhoid fever, summarizing the methods adopted at the S. P. Co.'s Hospital during the past two years.

DR. W. A. BRIGGS had used the ice collar but with no appreciable effect. He had always found the ice cap of great benefit. He believed salol to be a very good intestinal disinfectant. It was liable to cause collapse on account of its decomposition and the formation of carbolic acid, and should therefore be used with much caution. In cases of typhoid fever with profuse diarrhea, he often used the salicylate of bismuth given in 5-gr. doses every hour or two. Pyrexia is one of the chief symptoms to overcome.

DR. W. R. CLUNESS said no definite rule would govern the treatment of these cases. Each one must be treated on its own merits. He had used salol and had seen it followed by collapse as mentioned by Dr. Briggs. He had formerly used the sulpho-carbolate of zinc to check the diarrhea and as a disinfectant. The only objection to this remedy was that it occasionally causes emesis; he had found that when given in 1-gr. doses every hour it did not produce vomiting. Typhoid fever cannot be aborted; we should endeavor to meet the indications and tide the patient over.

Invitation to the State Society.—THE PRESIDENT, for the Committee on Invitation to the State Society, reported that the invitation had been accepted and that the State Society would meet in Sacramento in 1891. It was decided to await a statement from the Committee on Arrangements before taking any action.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, May 13, 1890.

The President, J. F. MORSE, M.D., in the Chair.

Honorary Member.—WASHINGTON AYER, M. D., was elected an honorary member of the Society.

Radical Cure of Hernia.—DR. L. BAZET reported a case, exhibiting the patient, a child 4 months old, in which he had performed an operation for the radical cure of hernia. He also read a paper upon "Iliac Adenitis Occurring in the Course of a Vesico-prostatic Sclerosis." (To be published.)

DR. G. F. SHIELS referred to a former discussion upon this subject when he advocated the operation even in early life, as the line of treatment which should be generally adopted; and he was pleased that this case had been shown to the Society, as it testified strongly in support of his views by demonstrating how complete and efficient an operation could be performed even in an infant.

DR. W. E. TAYLOR said that his experience was limited to the older forms of operation and these were for a time successful, but in most of them a recurrence followed. In the modern modes of operating, there was a much better prospect of permanent cure. But at the same time he was of the opinion that something more was necessary than simply closing the hole in the abdominal wall, and that in all probability the disease was associated with some congenital mishap in the arrangement of the abdominal contents or imperfect development. The case exhibited gave every promise of a cure; but as to the idea of operating upon all cases of hernia, he had grave doubts of its wisdom, because the operation, even at the best, contained an element of danger, and the question whether the benefit will compensate for the risk must always suggest itself.

DR. C. N. ELLINWOOD believed that the operation in its newer forms gave great hopes, but he questioned whether it was justifiable as there could be no doubt that very great benefit followed the use of a truss.

DR. P. H. BAILHACHE did not think that a man could be too young or too old to undergo the operation; the only cases he would except were those of very old men with a very large sac. Formerly he had followed the McEwen method, but now that had given place to McBurney's, where the larger granulated surface gives a firmer basis. To show the permanence of the good results he quoted a case where the patient had been refused admission into the British navy on account of a hernia, but after operation he was accepted. The exigencies of naval service rendered it impossible for a man to wear a truss, and, at the same time, the liability to strangulation under circumstances where no medical aid could be obtained, made it imperative that among seafaring men an operation for the radical cure should be undertaken.

DR. H. W. YEMANS said that there always was a tendency to recurrence of the trouble even after operation, and he did not think that the operation should be undertaken until a truss had been given a fair trial.

THE PRESIDENT said that in establishing the prognosis of a case, the method of procedure, the age of the patient and the contents of the sac must all be taken into consideration. The sooner the operation was performed the better, as trusses very rarely fitted and the patient never kept them properly adjusted. All methods consisted in opening the sac, returning the contents, and closing the ring; and unless the pillars of the ring were closed no cure could be expected. Czerny, whose method he generally followed, says that an absolute cure cannot be guaranteed in any case, still he would operate if there was a prospect of relieving the patient even for three or four years.

DR. L. BAZET, in closing the discussion, said that he had operated nine times during the past year, using a slight modification of Czerny's method.

DR. W. E. TAYLOR had failed to hear the paper on Iliac Adenitis sufficiently to enter upon a full discussion. From what he had seen of the case he was inclined to suspect malignant disease of the prostate.

DR. G. F. SHIELS had seen the case in an earlier stage and then it appeared to be an ordinary case of enlarged prostate, but the enlargement of the other glands led him to believe it was an example of lymphadenoma, a disease which by many authorities is regarded as curable. The absence of cachexia and the slow growth made him doubt the malignant character of the disease.

DR. P. H. BAILHACHE suggested that, as amelioration of the glandular symptoms occurred contemporaneously with the improvement in the condition of the prostate, the glandular swelling might be sympathetic.

DR. L. BAZET, in closing the discussion, replied that the possibility of malignant disease of the prostate had suggested itself to him, but he had rejected the hypothesis because the sacral glands were not enlarged, there was not any pain, neither was there any hematuria. It must be remembered that the patient suffered from general atheroma and he believed that the two conditions were intimately associated. The cystitis was, without doubt, due to the use of the dirty catheter which the patient was in the habit of carrying around with him.

County Hospitals.—The resolution adopted by the Medical Society of the State of California, regarding County Hospitals (MEDICAL TIMES, vol. iv. p. 265), was read and was unanimously endorsed by the Society. After considerable discussion as to the best method of giving effect to the sentiment of the State Society, the following resolution was adopted, and a copy ordered transmitted to the local Board of Supervisors:

WHEREAS, The San Francisco County Medical Society is of opinion that the appropriation for the City and County Hospital is insufficient for the proper maintenance of the institution; therefore be it

Resolved, That the honorable Board of Supervisors of the City and County of San Francisco be requested to increase the appropriation so that the institution may be conducted efficiently and with greater benefit to the patients.

SPECIAL CORRESPONDENCE.

LONDON.

[FROM OUR OWN CORRESPONDENT.]

Tuberculosis, Scrofula and Lupus.—Discussion on Abdominal Surgery.—The Pathology of Duodenal Ulcer.—Surgeon Parke, A. M. S. Select Committee on Hospitals.—Epsom Medical College.—Sir William Jenner and Sir William Gull.—The New Lunacy Law.

Dr. Lingard has made some important experiments for the medical department of the Local Government Board, as to the relationship of tuberculosis, scrofula and lupus. Koch, as is well known, has stated that the bacillus tuberculosis is present in all three, but the incontestable clinical differences seemed to many to detract from the value of his observations. Dr Lingard has, as it seems to me, pretty conclusively proved that the clinical diversity is due, in part at least, to a difference in the virulence of the bacillus. Arloing had advanced evidence in this direction some years ago, but his results were controverted. Dr. Lingard finds in guinea pigs, that subcutaneous inoculation of tuberculous material leads to the death of the animal from general tuberculosis in about 80 days; inoculation with scrofulous material has the same result in about 200 days, and with lupus material in 330 days. Further, he has found that animals inoculated in series, died at progressively shorter intervals. Taking all his experiments together, he obtained the following averages: Guinea pigs A inoculated with scrofulous material (caseous glands or cold abscess), died of general tuberculosis in 206.3 days; guinea pigs B, inoculated from A's, died of general tuberculosis in 131 days; guinea pigs C, inoculated from B's, died of general tuberculosis in 79.5 days, and guinea pigs D, inoculated from C's, died of general tuberculosis in 60.1 days. A considerable agitation is on foot at present with regard to the propriety of permitting the sale of the flesh of animals affected with tuberculosis in any form. The question of compensation to breeders and butchers constitutes the main difficulty, and there is considerable difference of opinion among sanitary experts; the more thorough-going maintain that tubercle anywhere ought to lead to the condemnation of the whole carcass, while others hold that a slight amount of tubercle, affecting only the lungs, pleura, or other viscera, ought not to prevent the flesh being passed. Except to the eaters of very underdone beef, the matter is not one of first-rate importance; but it is altogether different with regard to milk, and it is probable that power will be obtained by sanitary boards to forbid the sale of milk from cows suffering from tuberculosis in any form, but especially, and above all, from mammitis.

A very well sustained discussion on abdominal surgery occupied two of the recent meetings of the Medical Society. Mr. Knowsley Thornton, as President of the Society, occupied the chair, and among the speakers was Mr. Lawson Tait, who roared indeed like any sucking dove; and so, indeed, did all the young lions, so that the occasion was characterized by more harmony than usually attends discussions on this subject. Mr. Tait girded at antiseptics, and those who adhered to their use adopted a somewhat apologetic tone. The greatest amount of warmth was displayed on the question whether abdominal operations should be performed only by specialists, in special hospitals. On this point the more advanced school took the more conservative attitude. Mr. Mayo Robson could point to his splendid results in the Leeds General Infirmary; but to his further contention, that they were also to be taken as evidence in favor of general surgeons doing such operations, it was retorted upon him that he was most truly described as a specialist who was also a general surgeon. However this may be, the fact is that abdominal operations are now being performed every day in general hospitals as part of the general routine of a surgeon's work; but that in such hospitals but few men are found to forego the use of antiseptics, although the spray is often laid aside.

Everybody who has ever read a surgical text-book, is acquainted with the alleged connection between extensive burns and ulcer of the duodenum; the proportion of cases in which this complication occurs is small, so small that the concurrence has been by many held to be accidental. This opinion has been confirmed by the absence of any satisfactory explanation of the mode in which the skin-burn could produce the duodenal ulcer. Ulceration has never been observed, so far as can be ascertained at Guy's Hospital, where very careful *post-mortem* records, extending over many years, are preserved, and at University College Hospital, a recent search of the *post-mortem* books has revealed only two instances of duodenal ulcer in 93 deaths from burns. Dr. William Hunter, the John Lucas Walker Pathological Scholar in Cambridge University, has recently recalled attention to an important point noted by the late Mr.

Curling, who was the first to note the coincidence. It is that the ulceration is only to be looked for in cases of severe burns, which have died from seven to ten days after the accident. Dr. Hunter, in making some experiments with toluylendiamene, injected subcutaneously, noticed that in animals killed from three to seven days after there was intense duodenitis, and ascertained that this was due to excretion of the toluylendiamene with the bile. He suggested that duodenal ulcer after burns might be the result of acute duodenitis, produced by the secretion of an irritant in the bile. Burns, he pointed out, like toluylendiamene, produced marked changes in the blood, and sometimes hemoglobinuria, these results being traceable in part to the high temperature, and in part to the absorption of disintegrated material by the blood.

One of the most popular men in this country at the present moment, is Surgeon Thomas Heazle Parke, who accompanied Mr. Stanley in the Emin Pasha Relief Expedition 1887–'89. Surgeon Parke, who received his medical education at the school of the Royal College of Surgeons of Ireland, obtained his diplomas in 1877–'78, and entered the Medical Staff of the British Army in 1881. He served in the Egyptian War of 1882 (Arabi's), receiving the medal and Khedive's star, and also took part in the Nile Expedition of 1884–'85. He volunteered to accompany Stanley without pay, and obtained leave from the War Office "without pay," so that he undertook the expedition without hope of fee, or any other reward than the esteem of all those who admire pluck and devotion to duty. Mr. Stanley, who in his earliest letters spoke of Surgeon Parke in terms of warmest praise, again mentioned his name at the great reception on May 2d, over which the Prince of Wales presided. Mr. Stanley described the terribly hard work which Surgeon Parke had to go through, and the cheerfulness and skill with which he discharged every duty. He concluded his reference to Surgeon Parke with the following sentence: "Every white officer in the expedition, Emin Pasha, Captain Casati, and the Egyptian officers, are indebted to him; and, finally, after 34 months of noble work, he has the sad office of ministering to the necessities of Emin Pasha after his terrible fall at Bagamoyo, and after 20 days of unremitting attention to him, he is prostrated and conveyed to the French Hospital at Zanzibar, where his state becomes so critical that Dr. Charlesworth begs me to hasten to him before it is too late." The medical profession has been eager to recognize that Surgeon Parke has reflected honor upon it. The Royal College of Surgeons of Ireland have conferred upon him its Honorary Fellowship, and the British Medical Association will present its Gold Medal to him at the annual meeting at Leeds; he is to be entertained at a banquet by his brother officers of the Army Medical Staff, and numerous private or semi-public entertainments are being arranged in his honor. Finally, it may be said that the War Office has taken heart of grace to pay the salary which he had consented to forego, and that he will probably be promoted Surgeon-Major. The recipient of all these honors and attentions has been described by newspaper interviewers as "an Apollo," but perhaps it is here more to the point to say that he is a modest, straight-forward gentleman, whose charming manners and unassuming address more than confirm the good impression which his frank and intelligent face produces.

The Government has consented to the appointment of a Select Committee of the House of Lords, to inquire into the management of Hospitals and Medical Charities in London. The abuse and mismanagement complained of, however, is not confined to London, and medical men in the Provinces are anxious to get the scope of the Committee's inquiry enlarged, so as to include the chief provincial towns.

The biennial festival of the Epsom Medical Benevolent College was celebrated on April 17th with much *éclat*. Sir James Paget, one of the happiest of after dinner speakers, presided, and he was supported by Earl

Granville, K. G., Sir Andrew Clark, M. D., and Mr. Jonathan Hutchinson. The after-dinner speeches were a good deal above the average, and a sum of nearly £2000 was subscribed. The College is an institution unique, I believe, in its way. It gives home and pensions to a number of members of the medical profession who have failed in the battle of life; but its most important work is the maintenance of a first-class boys' school. It is, in fact, a public school, with a medical foundation—*i. e.*, there are a number of scholarships for the sons of medical men who are educated for a nominal sum, just as at Eton and many other of the great public schools, there are "foundation scholarships." The vast majority of the boys, however, pay the full usual fees, and the parents of many of them belong to other professions than medicine. On leaving school, a considerable proportion of the boys have recently been successful in obtaining scholarships at Oxford, Cambridge, and the London Medical Schools. The College has been very unfortunate in the matter of head-masters. A few years ago it was necessary to require the resignation of the then head-master, and his successor, who was beginning to bring the school to the front, died very suddenly, while still in the prime of life. So much depends on the personality of the head-master, that these untoward events have retarded the growth of Epsom in numbers and reputation.

The death of Sir William Gull, who had, however, practically retired two years earlier, and the final retirement of Sir William Jenner, has made a considerable difference in London practices of the strictly consulting class, of which, by the way, there are very few. These two physicians were for nearly 20 years the unquestioned leaders in medicine, and both did an enormous amount of work. Dr. Quain alone remains of their contemporaries, friends, and competitors, still busily engaged in active practice, the brighest, halest, heartiest of septuagenarians. The most prominent man of the new generation is Sir Andrew Clark.

The new lunacy law came into force on May 1st. In future the process of committing a lunatic to an asylum will be somewhat simplified, and it is believed that the liability of the signers of the medical certificates to vexatious prosecutions will be diminished. The nearest relative must present a petition, accompanied by two medical certificates, to a "judicial authority (magistrate nominated *ad hoc*, stipendiary magistrate or county judge), who will, at his discretion, make a reception order, which will empower the director of an asylum to accept the lunatic for care and safe custody. In cases of a pressing nature, an alleged lunatic may be committed to an asylum on an "urgency order," made by the nearest relative, and supported by one medical certificate; if the alleged lunatic is to be detained beyond seven days, a "reception order" must be obtained by petition from the "judicial authority" within this time. These regulations do not apply to paupers, for whose commitment to an asylum a magistrate's order was, under the old law, always required, nor to lunatics so found by inquisition—*i. e.*, by a jury.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

Nona, the Sleeping Disease.—Orexin and Aristol.—Cremation in Hamburg.—Goübersdorf and the Treatment of Consumptives.—Handwriting from a Forensic Point of View.

The great wave of influenza has now passed away, and people are again beginning to speak of other topics. As a sequel, however, to this wide-spread epidemic, or, as it has fitly been termed, pandemic, we are now made acquainted with a new disease called "Nona," or the sleeping disease. Fortunately the danger so far, appears to be more imaginary than real, in this country at least, and but for a case in Berlin, occurring in a soldier who slept for three consecutive days and subsequently died, I should be at a loss for any reliable local evidence on the subject. In Italy quite a number of persons are reported to have been attacked and to have succumbed to the disorder, and as the daily papers have published some terrifying accounts about it, the public mind is sadly exercised with the fear of the trouble spreading, and doctors are getting quite tired of hearing the selfsame questions about nona over and over again. A writer of the sixteenth century is adduced as having stated that an affection of a similar nature occurred in his time; the persons attacked slept for three times four and twenty hours, and when they awoke they were in the agony of death. All attempts at treatment are reported to have proved futile.

Amongst recent discoveries the invention of orexin, may doubtless lay claim to proving a great boon to suffering mortals. It is recommended by Professor Penzoldt, of Erlangen, as a valuable stomachic tonic, and at his hands has been most useful in the treatment of loss of appetite in consumption and from other causes. According to its chemical construction the drug is Phenyldihydrochinazolin, a derivative of the genuine group. It is a yellowish white powder, of a decidedly pungent taste, but otherwise apparently without any peculiar qualities. The merit of having discovered the compound is due to Dr. Paal, though Professor Penzoldt was the first to apply it medicinally. His prescription is:

℞—Orexin Hydrochloric ------------------gm. 2.0
Extr. Gentian.
Pulv. Rad. Althæ, aa q. s. ut. f. pills xx

The pills to be coated with gelatine in order to avoid the unpleasant burning sensation that would otherwise be produced in the throat. 3 to 5 pills are to be taken once or twice a day with a large cup of beef tea. Not more than 0.5 gm. of the drug should be taken at one time nor more than three times as much in the course of the day. My opportunities for testing the remedy have not as yet been sufficient to form an opinion, and I cannot say whether the effect observed was due to the drug or to other causes. Nevertheless, any invention which holds out a reasonable hope that we will in future be able to do more for our chronic dyspeptics, with their legion of all kinds of secondary complaints, will certainly be heartily welcome.

Of aristol or dithymoldijodide, I will make but short mention, as I am informed that its introduction into the United States is prohibited. It is a light, reddish brown powder, soluble in ether and fatty oils, and devoid of odor. This latter quality renders it preferable to iodoform, which it is intended to supplant in the treatment of lupus and other diseases of the skin, especially psoriasis and eczema parasitarium. It is applied in vaseline, as a 3 to 5 per cent. salve, and according to Dr. Eichhoff's report it is a most efficient agent.

Another advance in the right direction is in regard to the question of cremation. In Hamburg the subject has engaged so much interest of late, that the society formed for the furtherance of this mode of disposing of the dead, has been able to collect sufficient funds to build a crematorium. The Senate, the highest authoritative corporation of this free Hansa town, has already given its assent to the construction of the edifice under certain restrictions, and we may confidently hope that the verification of the object in question will not be very far distant. It is indeed a matter of great sanitary importance to the town, as the cemeteries in the outskirts have been in use for so long a period as to unquestionably necessitate a change of system. A few years ago a spacious burying ground was consecrated in a locality about an hour's distance from the city but it is evident that with Hamburg's rapid expansion, which is increasing visibly since its final incorporation within the zone of the Empire, the day cannot be far distant when this will also be insufficient to meet the demand for resting places.

No doubt, your readers will have heard with regret that the celebrated specialist for tuberculosis, Dr. Brehmer, of Goübersdorf, expired a few months ago. Dr. Felix Wolff, of Hamburg, his successor, has been appointed director of that large and eminently useful institution well known throughout Germany and other countries as a refuge for patients afflicted with consumption. Some information on the working of this great sanatorium, which is the first of its kind in the world, may be of interest. More than a generation ago, at a time when the medical profession in general believed implicitly in the incurability of pulmonary tuberculosis, Brehmer, a man of rare talents and no less courage, undertook to prove by clinical observation what he had previously maintained in a valuable theoretical essay, that there is a possibility of combating this insidious malady. For a number of weary years his endeavors met with scanty success, but gradually the favorable results achieved in his establishment—remarkable, indeed, in comparison to those obtained by the doctors following the old lines of treatment for consumption—attracted so much attention and *pari passu* so many new patients, that the accommodation had to be considerably extended. At present the place affords relief to about 600 patients yearly, and during the time it has been in existence, no less than 15,000 consumptives have sought and, it must be added, mostly found aid under the care of Dr. Brehmer. The success of the institution has been so great that quite a number of similar sanataria have been founded in various parts of Germany, a competitive institute having been erected in Goübersdorf itself; but it is needless to say the original still presents advantages in which the others are wanting. The chief aim of the plan of treatment is first to place the patient in an atmosphere which is free from the germs of tuberculosis, so that any possibility of renewed ingestion of the *materia peccans* may be entirely avoided: and secondly to fortify and strengthen the patient as much as possible, so as to enable him to resist the attacks of the germs located in his tissues. This object is to be achieved by a most generous and nutritious diet, and by exercise carefully modified to each individual case. Nor is the treatment bound to any cut-and-dried rules, but the whole staff of the establishment is constantly busily engaged in fruitful study of all the various stages of the disease. A meteorological and bacteriological laboratory form part of the institute, and the results of the careful observations on the plentiful supply of cases under consideration, has already been productive of many valuable contributions to the literature of the subject, the most important being an elaborate work of Dr. Brehmer's himself, on the treatment of tubercular consumption. It is to be hoped and expected that this undertaking, which has hitherto been conducted on such strictly scientific principles, will, under its new chief, advance to still greater usefulness, both for its patients and the service of science in general. Dr. Wolff is still a young man, but he has had a number of years of valuable experience at the General Hospital at Hamburg, under Professor Curschman's (now of Leipzig) supervision, and is certainly well qualified for his new post. His previous career has fitted him to meet the demands made in the organization and working of a hospital no less than for the pursuit of scientific research, of which he has often given evidence in a number of instructive papers.

A very interesting forensic case of much practical value recently occupied one of the local "Stratkammer" (Criminal Court). A little girl, twelve years of age, a pupil of the People's Elementary School, was noticed to be not so well as she had been, exhibiting unusual apathy and listlessness with loss of appetite, occasional sleeplessness, headache, and also twitching of some of the muscles. The parents were at a loss for a cause to which these unusual symptoms might be attributed, and concluded that they must be due to a blow on the head dealt to the girl by the teacher at school. This opinion was discountenanced by the attending physician, but on the disease resulting in death a few months later, the parents called the attention of the Public Prosecutor to the case, and an autopsy was performed, which confirmed the doctor's diagnosis, tuberculous tumor of the brain. The chief point of interest in the case however, and what I thought most instructive, was the evidence afforded through the medium of the child's copy book. A comparison of her handwriting as it had been during health, with that of a few months later, at the time when the blow supposed to be the origin of her disorder, was struck, showed clearly that she had already been suffering from brain trouble at this time. The specimen of her handwriting during health was a very fair sample of a child's caligraphy at twelve years of age, whereas that of later date showed unmistakable signs of a marked inability to control the fingers and the pen. Several of the upstrokes, for instance, had been written with great trembling, and a number of quite erratic dashes here and there proved that the control over the pen was at times entirely lost. Besides, there were several orthographical mistakes, which, but for the presence of brain trouble, one would be decidedly at a loss to account for; misplacement of letters in words, supplanting of certain simple words by unmeaning syllables of a similar sound and so forth. Professor von Krafft-Ebing has written a very instructive work on the handwriting of the insane, but the occurrence of such a case in one's own experience, brings the importance of the subject much more forcibly home than more extended research.

May 2, 1890.

REVIEWS AND NOTICES.

THE MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A work of Reference for Medical Practitioners. Eighth year, 1890, pp. xix, 600. New York: E. B. Treat & Co. Cloth, $2.75.

This work, which has been very successful in Great Britain and the Colonies, now appears in the above form as an "American Edition." In one compact volume of 600 pages, it gives a review of the literature of the past year. Three-fourths of the book are included in "a dictionary of new treatment in medicine and surgery," in which, alphabetically arranged, are the various subjects. Another section is devoted to "new remedies," and amongst the miscellaneous subjects "sanitary science" is treated at considerable length. The list of contributors includes many familiar names, and the work has been well done. Though greatly condensed, the style throughout is easy and the treatment of each section, is certainly thorough. The references to authorities follow the article directly and can be easily referred to by the name of the author. There are numerous illustrations ; the type, though small, is clear and the paper good, considerations that are important in a work at this price. This edition seems to have been rushed through the press, as there are numerous typographical errors, and in the copy before us some sheets have been misplaced in the binding, and 16 pages are omitted. As a convenient reference, at an extremely low price, this annual can be strongly recommended.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held June 4, 1890, the following physicians were granted certificates to practise medicine and surgery in this State:

Denis Henry Bourgougnon, San Francisco; Faculty of Med., Paris, France, Mar.12,'84.
Henry Rolf Brown, San Francisco; Med. Dept. Univ. City of N. Y., Mar. 12,'89,

Walter Bernard Coffey, San Francisco; Cooper Med. Coll. Cal., Nov. 12,'89.
John Joseph Hug, San Francisco; Jefferson Med. Coll. Pa., Apr. 2,'90.
Joseph Jauch, Los Angeles; Univ. of Würzburg, Ger., Mar. 7,'89.
John William Jones, Sierra City; Med. Dept, Vanderbilt Univ. Tenn., Mar. 1,'90.
Harvey Arthur Lindley, Benicia; Med. Dept. Univ. of Louisville, Ky., Feb. 27,'83.
J. Lawrence Maupin, Fresno; St. Louis Coll. of Phys. and Surg. Mo., Mar. 10,'90.
John McCoy, Los Angeles; Med. Dept. Univ. of Mich., Mar. 30,'65.
Aloysius P. O'Brien, San Francisco; Med. Dept. Univ. of Cal., Nov. 14,'89.
Geo. H. H. Redding, San Francisco; Bellevue Hosp. Med. Coll. N. Y., Mar. 14,'87.
James Denny Reed, Covina; Bellevue Hosp. Med. Coll. N. Y., Mar. 14,'83.
John Lovell Reeve, San Francisco; Queen's Univ. Ontario, Can., Apr. 24,'82; Coll. of Phys. and Surg, Ontario, Can., May 30,'86,
James William Robinson, Jacksonville, Ore.; Med. Dept. Willamette Univ. Ore., June 11,'78.
Wm. Lee Short, Galt; Cooper Med. Coll. Cal., Nov. 12,'89.
Allen C. Simonton, San Jose; Chicago Med. Coll. Ill., Mar. 4,'68.
Frederick Fischer, San Francisco; Univ. of Leipsic, Ger., Mar. 18,'82.
Kennosuke Wada, San Francisco; Coll. of Med. Univ. of Southern Cal., Apr. 16,'90.

CHAS. E. BLAKE, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from May 16, 1890 to June 17, 1890.

The following named medical officers are assigned to duty with the 2d and 4th Cavalry while *en route* to their new stations: Captain John M. Banister, assistant surgeon, and First Lieutenant Philip G. Wales, assistant surgeon. Upon the completion of the duties herein assigned to them, Captain Banister will comply with Par. 1, S. O. 92, of the Army; First Lieutenant Wales will return to his station, unless otherwise directed. Par. 2, G. O. 5, Div. Pacific, May 19, 1890.

Under the provisions of Par. 1, S. O. 83, Hdq. of the Army, the evening of May 23, 1890, is fixed as the date for relief of Captain William E. Hopkins, assistant surgeon, from duty at Fort Mason and in the Division of the Pacific. Par. 1, S. O. Div. Pacific, May 21, 1890.

The telegraphic instructions of the 2d instant to the commanding officer, Fort Spokane, directing Assistant Surgeon E. L. Swift to proceed to Fort Sherman for temporary duty, are confirmed. Par. 1, S. O. 57, Dept. of the Columbia, June 3, 1890.

Leave of absence for one month, to take effect about June 20th, instant, is granted Acting Assistant Surgeon J. L. Ord. Par. 1, S. O. 59, Dept. Arizona, June 12, 1890.

Upon arrival of Assistant Surgeon J. M. Banister at Fort Stanton, N. M., Assistant Surgeon R. W. Johnson will return to his proper station, Whipple Barracks, A. T. Par. 2, S. O. 59, Dept. Arizona, June 12, 1890.

Leave of absence for one month, on surgeon's certificate of disability, is hereby granted to Captain Marcus E. Taylor, assistant surgeon, with permission to go beyond the limits of this division, and to apply for an extension of five months. Par. 1, S. O. 45, Div. Pacific, Jnne 13, 1890.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (Division of the Pacific) May 20 to June 20, 1890.

T. B. Berry, Assistant Surgeon. Ordered to examination for promotion.

ITEMS.

Dr. T. More Madden.—We have much pleasure in recording that Dr. T. More Madden, of Dublin, a valued contributor to our columns, has been nominated as Honorary Member of the Texas State Medical Society, and a Corresponding Fellow, with Gold Medal, of the Italian "Societa dei Benemeriti" of Palermo. Dr. Madden has also had the honorary degree of Doctor of Medicine of the Texas Medical College unanimously conferred upon him on the nomination of Professor Paine. "The faculty," says the Dean of the College, Dr. Cooke, "begs that you will accept this degree as in some part a recognition of your services as a practitioner, your valuable and distinguished labors in the field of gynecology, and your eminent position in the esteem of the medical profession of this country as of your own." We congratulate Dr. Madden that his services to the profession have been recognized abroad as well as at home.